

Test & Measurement



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Test Equipment

Thermal Imaging

Benefits of Thermography



Infrared radiation (IR) is emitted by every object above a temperature of -273°C. The human eye cannot detect infrared radiation, but an infrared camera can. It can take pictures of objects to show the amount of heat they are emitting. Such pictures consist of a map of colours that show surface temperatures of the object. An infrared camera is an invaluable diagnostic tool in a variety of industries, as it can detect abnormally hot or cold areas or components. Thermography is a powerful maintenance tool, as in many instances equipment failure is preceded by a period of increasing heat. An infrared camera is also an excellent building inspection instrument, it quickly scans and identifies problem areas that can't be seen by the naked eye.

It is also used for repair verification and insurance purposes. They allow you to accurately measure the temperature and take an image of any object you are looking at in a non-contact mode, without putting you or staff in danger.

FLIR Systems are the global leader in infrared camera technology and their latest models - E4, E6 and E8 - offer temperature measurement together with an MSX-enhanced IR image and a visual image. They are light-weight, compact and rugged. The new user-friendly interface makes it easy to start using the camera without previous knowledge or camera training

The ideal tool for condition monitoring to assist in locating problems fast, indoor or outdoor instantly identify previously 'invisible' potential problems in mechanical, electrical and many building applications.

Applications

Electric Motors
Bearings (Plummer Blocks and Self Lube)
Gearboxes
Idler bearings on conveyors
Conveyor belts
Pulleys
Pumps and piping
Steam traps
Oil coolers
Tank liquid levels
Insulation integrity
Refractory integrity
Circuit breakers
Busbars
Switchgear
Fuses
Relay panels

Flir C2 Compact Thermal Camera



NEW

- The FLIR C2 is the world's first full-featured, pocket-sized thermal camera designed for building industry experts and contractors
- Keep it on you so you're ready anytime to find hidden heat patterns that signal electrical/mechanical faults, energy waste, structural defects, plumbing issues and more
- The C2's must-have features include MSX® real time image enhancement, high sensitivity, a wide field of view, and fully radiometric imagery to clearly show where problems are and verify the completion of repairs
- Pocket Portable: Light, slim profile fits comfortably in any work pocket. Keep it on you and at your side, ready for immediate use so you don't miss an opportunity
- Easily Affordable: fits everyone's budget to help put this powerful tool into the hands of more people who can really use it
- Fully Radiometric Images – Stores hundreds of thermal, MSX and visible image JPEGs with all temperature data intact ready to download to your Mac or PC
- IR Sensor: 80 x 60 (4,800 measurement pixels)
- Digital Camera: 640 x 480 pixels
- Image Frequency: 9Hz
- Sensitive: 0.1°C sensitivity for sharper image quality and easier detection of faults
- MSX – Recognize problem locations instantly when you see thermal images enhanced with visible camera details such as numbers, signage, labels, and other identifiable features
- 41deg Wide Angle lens as standard – capture entire image at close range. Avoid having to stand too far away to capture the shot
- FLIR Tools professional reporting software included – the industry standard in thermal image post analysis
- Streaming video via FLIR Tools, a feature not usually available on low-cost thermal camera systems
- Brilliant 3" intuitive touch screen with auto orientation for easy viewing (320 x 240 pixels)
- Built-in LED spotlight you can use as a torch and for photo illumination
- Reliable Results – FLIR's outstanding thermal accuracy (within 2% or +/- 2°C) and broad measurement range (-10°C to 150°C) for results you can count on
- Focus-free IR and Visible Camera for Point-and-Shoot Simplicity
- Internal Rechargeable Battery
- FLIR's unique 2-10 warranty, covering parts and labor for two years and the detector for ten

Price Each

Order Code	Product Code	Description	1+
WX63806 ‡	C2	Compact Thermal Camera	£650.00

‡ Special delivery applies. Please ask for details

Flir Ex Series Thermal Imaging/ Temperature Camera's



- The new Ex series offers temperature measurement together with an MSX-enhanced IR image and a visual image
- It is light-weight, compact and rugged
- The new user-friendly interface makes it easy to start using the camera without previous knowledge or camera training
- MSX – Recognize problem locations instantly when you see thermal images enhanced with visible camera details such as numbers, signage, labels, and other identifiable features
- Fully Radiometric Images – Stores hundreds of thermal, MSX and visible image JPEGs with all temperature data intact ready to download to your Mac or PC
- Compact Design – Light at 575g for easy one-handed operation, yet tough enough to stow with the rest of your tools.
- Focus-free IR and Visible Camera for Point-and-Shoot Simplicity
- Ruggedness You Can Trust (Withstands 2 Meter Drop)
- Trigger Captures Radiometric JPEG Images
- Protective Lens Cover Slides Open Easily
- Quick-release Rechargeable Battery
- Quick Button Access to Measurement, Parameter, and Imaging Tools"
- New user-friendly interface
- Excellent, Super Bright, 3" Color 320 x 240 LCD Shows the Whole MSX Scene
- FOV 45° x 34°, well-suited for building and electrical/mechanical application
- Reliable Results – FLIR's outstanding thermal accuracy (within 2% or +/- 2°C) and broad measurement range -4° F to 482° (-20°C to 250°C) for results you can count on.
- Infrared camera supplied with: Hard transport case, Battery (inside camera), USB cable, Power supply/charger with EU, UK, US and Australian plugs, Printed Getting Started Guide, Printed Important Information Guide, User documentation CD-ROM, Warranty extension card, Calibration certificate

FLIR E4	FLIR E5	FLIR E6	FLIR E8
Thermal image quality: 80x60 (4,800 pixels)	Thermal image quality: 120x90 (10,800 pixels)	Thermal image quality: 160x120 (19,200 pixels)	Thermal image quality: 320x240 (76,800 pixels)
Spot (Center) Mode	Spot (Center) Mode and Area Box (Min/Max)	Spot (Center) Mode, Area Box (Min/Max), Isotherm (above/below)	Spot (Center) Mode, Area Box (Min/Max), Isotherm (above/below)
Thermal sensitivity: 0.15°C	Thermal sensitivity: 0.10°C	Thermal sensitivity: 0.06°C	Thermal sensitivity: 0.06°C

Price Each

Order Code	Product Code	Description	1+
WX60841 ‡	63901-0101	E4 Thermal Camera	£796.00
WX63807 ‡	63905-0501	E5 Thermal Camera	£1,196.00
WX60842 ‡	63902-0202	E6 Thermal Camera	£1,996.00
WX60843 ‡	63903-0303	E8 Thermal Camera	£3,035.00
WX60844 ‡	T127826	Carry Pouch	£17.00
WX60845 ‡	T198532	Car Charger	£34.00
WX60846 ‡	T198404	Spare battery	£52.00
WX60847 ‡	T198531	2 Bay charger	£100.00

‡ Special delivery applies. Please ask for details

Need advice?
FREE technical
support at every
Brammer branch

Flir Ex0 Series Thermal Imaging Camera's



With an image quality of 320x280 pixels, the FLIR Exx series is ideal for Electrical/Mechanical inspections/maintenance to find faults and ensure equipment operates at maximum efficiency and safety. Also for Building inspections to find energy loss, moisture ingress and pipe leaks, and construction faults.

- 160x120 (E30 & E40), 240x180 (E50), 320x240 (E60) pixel resolution
- Sensitive (detects 0.1degC (E30), 0.05 to 0.07degC (E40), 0.045 to 0.05degC (E50 & E60) temp differences).
- 25x19 ° FOV.
- Interchangeable lenses (Optional wide angle or telephoto).
- Manual Focus.
- WiFi output to mobile devices via free APP (to iPad/phone/Android/laptop) - (not on E30)
- Bluetooth link to Clamp or Moisture Meter & Voice Headset - (not on E30)
- Thermal + Visual cameras (High quality in-built visual camera).
- Blend visual and thermal images (thermal/visual/picture-in-picture/ thermal fusion) - (not on E30)
- Jpeg images onto SD card.
- Video recording - (not on E30)
- Video output (composite)
- Radiometric video streaming via USB cable to PC – live analysis/ image capture/video recording.
- Large tough Touchscreen.
- Laser Pointer.
- Tripod mountable.
- Measurement functions (spot/box/isotherm temperature).
- High accuracy (+/- 2%).
- Text and Voice annotations. Building isotherm alarms on bx versions (dew point and insulation alarms).
- Compact and Lightweight (only 825g).
- Extremely rugged (2m drop tested and IP54 rated).
- Long battery life (4hrs).
- Free FLIR Tools software or optional upgrade to FLIR Tools+

- Supplied with: Hard transport case
- Infrared camera with lens
- Battery
- Calibration certificate
- Camera lens cap
- Downloads brochure
- FLIR Tools software
- Handstrap
- Memory card
- Power supply, incl. multi-plugs
- Printed Getting Started Guide

Printed Important Information Guide
Service & training brochure
USB cable
User documentation CD-ROM
Video cable
Warranty extension card

- Range of Accessories listed below (Other accessories and Lenses available on request)

Order Code	Product Code	Description	Price Each	1+
WX54169 ‡	49001-1801	E30 Thermal Camera	£2,396.00	
WX60848 ‡	49001-1901	E30bx Thermal Camera	£2,396.00	
WX54170 ‡	49001-2001	E40 Camera Inc WiFi	£3,196.00	
WX60849 ‡	49001-2401	E40bx Camera Inc WiFi	£3,196.00	
WX54171 ‡	49001-2101	E50 Camera Inc WiFi	£4,396.00	
WX60850 ‡	49001-2501	E50bx Camera Inc WiFi	£4,396.00	
WX54168 ‡	49001-0602	E60 Camera Inc WiFi	£5,996.00	
WX60851 ‡	49001-1002	E60bx Camera Inc WiFi	£5,996.00	
WX60852 ‡	T911087	Carry Pouch	£34.00	
WX60853 ‡	T1196497	Car Charger	£34.00	
WX60839 ‡	T911093	Tool Belt	£30.00	
WX60840 ‡	T910737	SD card	£17.00	
WX60854 ‡	T1197752	Spare battery	£71.00	

FLIR E30/E30bx	FLIR E40/E40bx	FLIR E50/E50bx	FLIR E60/E60bx
Thermal image quality: 160x120 pixels	Thermal image quality: 160x120 pixels	Thermal image quality: 240x180 pixels	Thermal image quality: 320x240 pixels
Thermal sensitivity: <0.1°C	Thermal sensitivity: <0.07°C (0.045°C E40bx)	Thermal sensitivity: <0.05°C (0.045°C E50bx)	Thermal sensitivity: <0.05°C (0.045°C E60bx)
Temperature range: -20°C to +350°C	Temperature range: -20°C to +650°C	Temperature range: -20°C to +650°C	Temperature range: -20°C to +650°C
Spotmeter: 1	Spotmeter: 3	Spotmeter: 3	Spotmeter: 3
1 box with min./max. /average	3 boxes with min. /max./average	3 boxes with min. /max./average	3 boxes with min. /max./average
Built-in 2 Mpixels camera	Built-in 3.1 Mpixels camera	Built-in 3.1 Mpixels camera	Built-in 3.1 Mpixels camera
	Delta temperature measurement	Delta temperature measurement	Delta temperature measurement
	Voice / text annotations	Voice / text annotations	Voice / text annotations
	MeterLink™	MeterLink™	MeterLink™
	Bluetooth® / WiFi	Bluetooth® / WiFi	Bluetooth® / WiFi
	1-2x continuous digital zoom	1-4x continuous digital zoom	1-4x continuous digital zoom
	PIP IR area on visual image	PIP Scalable IR area on visual image	PIP Scalable IR area on visual image
	Non-radiometric IR-video recording	Non-radiometric IR-video recording	Non-radiometric IR-video recording
	Radiometric IR-video recording	Radiometric IR-video recording	Radiometric IR-video recording
	Non-radiometric IR-video streaming	Non-radiometric IR-video streaming	Non-radiometric IR-video streaming
		Thermal Fusion	Thermal Fusion
			Instant report

‡ Special delivery applies. Please ask for details

Flir T4xx Series Thermal Imaging Camera's



With an image quality of 320x240 pixels, the FLIR T4xx series is ideal for Electrical/Mechanical inspections/maintenance to find faults and ensure equipment operates at maximum efficiency and safety. Also for Building inspections to find energy loss, moisture ingress and pipe leaks, and construction faults.

- 320x240 pixel resolution

- Sensitive (detects 0.045degC temp differences).
- 25x19 ° FOV.
- Wide Temperature range (-20 to +650°C (T420 and T440bx) or -20 to +1200°C (T440))
- Interchangeable lenses (Optional wide angle, extra wide angle, telephoto or close-up macro).
- Autofocus & Manual Focus.
- Rotatable screen for easy imaging.
- WiFi output to mobile devices via free APP (to iPad/phone/Android/laptop).
- Bluetooth link to Clamp or Moisture Meter & Voice Headset.
- Thermal + Visual cameras (High quality in-built visual camera).
- Blend visual and thermal images (thermal/visual/picture-in-picture/ thermal fusion).
- Additional image blending - MSX
- Building alarms (Moisture and Insulation failure isotherms) (... bx versions)
- Jpeg images onto SD card.
- Video recording.
- Video output (composite)
- Radiometric video streaming via USB cable to PC – live analysis/ image capture/video recording.
- Periodic programmable image capture
- Large tough Touchscreen.
- Laser Pointer.
- Tripod mountable.
- 4x Zoom (T420), 8x zoom (T440 & T440bx).
- Measurement functions (spot/box/isotherm temperature).
- Additional measurement functions (Compass/Audible isotherm alarm)
- Image sketch on thermal/visual (T440 & T440bx only)
- High accuracy (+/- 2%).
- Text and Voice annotations
- Compact and Lightweight (only 825g).
- Rugged (drop tested and IP54 rated).
- Long battery life (4hrs).
- Free FLIR Tools software or optional upgrade to FLIR Tools+.

- Supplied as: Infrared camera with lens
- Battery (2 ea.)
- Battery charger
- Bluetooth headset
- Calibration certificate
- Camera lens cap
- Downloads brochure
- FLIR Tools download card
- FLIR Apps card
- Getting Started Guide
- Hard transport case
- Important Information Guide
- Memory card
- Neckstrap
- Optics brochure
- Power supply, incl. multi-plugs
- Service & training brochure
- Sunshield
- Thank you card
- USB cable
- User documentation CD-ROM
- Video cable
- Warranty extension card
- Range of Accessories listed below (Other accessories and Lenses available on request)

Order Code	Product Code	Description	Price Each	1+
WX60855 ‡	62101-0101	T420 Thermal Camera	£7,160.00	
WX60856 ‡	62101-0501	T420bx Thermal Camera	£7,160.00	
WX60857 ‡	62101-0301	T440 Thermal Camera	£8,760.00	
WX60858 ‡	62101-0701	T440bx Thermal Camera	£8,760.00	
WX60852 ‡	T911087	Carry Pouch	£34.00	
WX60853 ‡	T1196497	Car Charger	£34.00	
WX60839 ‡	T911093	Tool Belt	£30.00	
WX60840 ‡	T910737	SD card	£17.00	
WX60854 ‡	T1197752	Spare battery	£71.00	

‡ Special delivery applies. Please ask for details

Flir T6xx Series Thermal Imaging Camera's



With an image quality of 640x480 pixels, the FLIR T6xx series is ideal for Electrical/Mechanical inspections/maintenance to find faults and ensure equipment operates at maximum efficiency and safety. Also for Building inspections to find energy loss, moisture ingress and pipe leaks, and construction faults.

- 640x480 pixel resolution
- Sensitive (detects 0.04degC (T620) or 0.035degC (T640) temp differences).
- 25x19 ° FOV, 15x11 ° FOV or 45x34 ° FOV (choose when ordering).
- Wide Temperature range (-40 to +650° C) (optional upgrade to 2000°C) or -40 to 2000degC (T640)
- Interchangeable lenses (Optional wide angle, extra wide angle, telephoto or close-up macro).
- Viewfinder (T640/T640bx only)
- Continuous Autofocus (T640/T640bx), Autofocus & Manual Focus (all T6xx).
- Rotatable screen for easy imaging.
- WiFi output to mobile devices via free APP (to iPad/phone/Android/laptop).
- Bluetooth link to Clamp or Moisture Meter & Voice Headset.
- Thermal + Visual cameras (High quality in-built visual camera).
- Blend visual and thermal images (thermal/visual/picture-in-picture/thermal fusion).
- Additional image blending - MSX
- Building alarms (Moisture and Insulation failure isotherms) (...bx versions)
- Jpeg images onto SD card.
- Video recording.
- Video output (composite)
- Radiometric video streaming via USB cable to PC – live analysis/image capture/video recording.
- Periodic programmable image capture
- GPS
- Large tough Touchscreen.
- Laser Pointer.
- Tripod mountable.
- 8x zoom.
- Measurement functions (spot/box/circle or isotherm temperatures).
- Additional measurement functions (Compass/Audible isotherm alarm) (Compass on bx versions)
- Image sketch on thermal/visual (T640/T640bx)
- High accuracy (+/- 2%).
- Text and Voice annotations
- Compact and Lightweight (only 1.3g).
- Rugged (drop tested and IP54 rated).
- 2.5-3hrs battery life.
- Free FLIR Tools software or optional upgrade to FLIR Tools+.

- Supplied with: Infrared camera with lens
- Battery (2 ea.)
- Battery charger
- Bluetooth headset
- Calibration certificate
- Downloads brochure
- FLIR Tools download card
- FLIR apps card
- Getting Started Guide
- HDMI-DVI cable
- HDMI-HDMI cable
- Hard transport case
- Important Information Guide
- Large eyecap
- Lens cap
- Memory card with adapter
- Neck strap
- Optics brochure
- Power supply, incl. multi-plugs
- Service & training brochure
- Thank you card
- Tripod adapter
- USB cable, Std A to Mini-B
- User documentation CD-ROM
- Warranty extension card

- Range of Accessories listed below (Other accessories and Lenses available on request)

Price Each

Order Code	Product Code	Description	1+
WX60859 ‡	55901-2302	T620 25° - Thermal Camera	£15,960.00
WX60860 ‡	55901-2301	T620 15° - Thermal Camera	£16,520.00
WX60861 ‡	55901-2303	T620 45° - Thermal Camera	£15,960.00
WX60862 ‡	55901-4302	T620bx 25° - Thermal Camera	£15,960.00
WX60863 ‡	55901-4301	T620bx 15° - Thermal Camera	£16,520.00
WX60864 ‡	55901-4303	T620bx 45° - Thermal Camera	£15,960.00
WX60865 ‡	55902-2502	T640 25° - Thermal Camera	£20,760.00
WX60866 ‡	55902-2501	T640 15° - Thermal Camera	£21,320.00
WX60867 ‡	55902-2503	T640 45° - Thermal Camera	£20,760.00
WX60868 ‡	55902-4502	T640bx 25° - Thermal Camera	£20,760.00
WX60869 ‡	55902-4501	T640bx 15° - Thermal Camera	£21,320.00
WX60870 ‡	55902-4503	T640bx 45° - Thermal Camera	£20,760.00
WX60871 ‡	T911048	Carry Pouch	£38.00
WX60872 ‡	T910490	Car Charger	£34.00
WX60839 ‡	T911093	Tool Belt	£30.00
WX60840 ‡	T910737	SD card	£17.00
WX60873 ‡	T198055	Spare battery	£105.00

‡ Special delivery applies. Please ask for details

Flir P Series Thermal Imaging Camera's



With an image quality of 640x480 pixels, the FLIRP/P660 series is ideal for Electrical/Mechanical inspections/maintenance to find faults and ensure equipment operates at maximum efficiency and safety. Also for Building inspections to find energy loss, moisture ingress and pipe leaks, and construction faults.

- 640x480 pixel resolution
- Sensitive (detects 0.03degC temp differences).
- 25x18 °, 45x34 ° or 12x9 ° FOV (choose when ordering).
- Panorama capable
- Wide Temperature range (-40 to +500° C) (optional upgrade to 2000°C)
- Interchangeable lenses (Optional wide angle, extra wide angle, telephoto or close-up macro).
- Viewfinder (rotatable for easy imaging)
- Autofocus & Manual Focus.
- Rotatable screen for easy imaging.
- WiFi output to mobile devices via free APP (to iPad/phone/Android/laptop).
- Bluetooth link to Clamp or Moisture Meter & Voice Headset.
- Thermal + Visual cameras (High quality in-built visual camera).
- Blend visual and thermal images (thermal/visual/picture-in-picture/thermal fusion).
- DDE (Dynamic Details Enhancement for Mil-spec image detail)
- Building alarms (Moisture and Insulation failure isotherms) (B660)
- Jpeg images onto SD card.
- Video recording.
- Video output (composite)
- Radiometric video streaming via USB cable to PC – live analysis/image capture/video recording.
- Periodic programmable image capture
- Radiometric sequence burst recording to RAM.
- GPS
- Large 5.4" Tough Screen.
- Laser Pointer.
- Tripod mountable.
- 8x zoom.
- Measurement functions (spot/box/circle or isotherm temperatures).
- Additional measurement functions (Live line profile/Audible isotherm alarm)
- High accuracy (+/-1%).
- Text and Voice annotations
- Compact and Lightweight (only 1.8g).
- Rugged (drop tested and IP54 rated).
- 3hrs battery life.
- Free FLIR Tools software or optional upgrade to FLIR Tools+.

- Supplied with: Hard transport case
- Infrared camera with lens
- Battery (2 ea.)
- Battery charger
- Bluetooth headset
- Bluetooth® USB micro adapter
- Calibration certificate
- Downloads brochure
- FLIR Tools software
- FireWire cable, 4/6
- FireWire cable, 6/6
- Lens cap (mounted on lens)
- Lens cap (2 ea.)
- Memory card-to-USB adapter
- Memory card with adapter
- Power supply, incl. multi-plugs
- Printed Getting Started Guide
- Printed Important Information Guide
- Service & training brochure
- Shoulder strap
- USB cable
- User documentation CD-ROM
- Video cable
- Warranty extension card
- Wi-Fi USB micro adapter (depending on CE and FCC regulations regarding wireless equipment for your country)
- Range of Accessories listed below (Other accessories and Lenses available on request)

Price Each

Order Code	Product Code	Description	1+
WX60874 ‡	40402-3002	P660 25° - Thermal Camera	£25,560.00
WX60875 ‡	40402-3802	B660 25° - Thermal Camera	£25,560.00
WX60872 ‡	T910490	Car Charger	£34.00
WX60840 ‡	T910737	SD card	£17.00
WX60876 ‡	T196209	Spare battery	£101.00

‡ Special delivery applies. Please ask for details

Thermal Imaging Training Courses



Range of Thermal Imaging "thermography" courses

Price Per Person

Order Code	Product Code	Description	1+
WX60877 ‡	ITC-EXP-1011	Short course Introduction to thermography	£276.00
WX60878 ‡	ITC-EXP-2041	Short course electrical thermography	£500.00
WX60879 ‡	ITC-PRA-2011	ITC Practical Course – Solar Panel Inspection	£500.00
WX60880 ‡	ITC-EXP-2061	ITC Short course HVAC and Plumbing	£500.00
WX60881 ‡	ITC-CER-5101	Certification: ITC Cert. Course L1	£1,600.00
WX60882 ‡	ITC-CER-5201	Certification: ITC Cert. Course L2	£1,680.00

‡ Special delivery applies. Please ask for details

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Test & Measurement

SKF Thermal Camera TKT1 21



SKF

NEW

- Maintenance technicians and experienced thermographers can quickly and easily detect troublesome hotspots with the user-friendly Thermal Camera TKT1 21
- With a thermal detector of 160 X 120 pixels and a visual camera, the TKT1 21 is suitable for many mechanical and electrical maintenance inspection applications
- A wide temperature measurement range of -20 to +350 °C (-4 to +662 °F) makes the TKT1 21 suitable for many proactive maintenance programmes
- Visual and audible temperature limit alarm function alerts the user to abnormal conditions
- Automatic hot and cold spot cursors quickly pinpoints the extremes in a scene
- Up to five moveable temperature cursors/areas with individual emissivity settings for analysing complex scenes
- Temperature difference of two cursors can be displayed on screen enabling quick and easy temperature comparisons
- Isotherms, temperature gradients and area analysis boxes for advanced scene analysis
- Thermal sensitivity: NETD ≤ 100 mK (0.10 °C) at 23 °C (73 °F) ambient and 30 °C (86 °F) scene temperature
- Built-in emissivity tables allow easy emissivity value setting
- Eleven selectable colour pallets for ease of use
- Field of View 25x19°, Frame rate and image frequency 9Hz
- Fully radiometric thermal and visual images are stored on the 2GB micro SD card provided
- Images can be voice annotated for later reviewing with the PC software
- Video output function allows the live image to be shown on an external display, useful when showing to a group of people
- Supplied with two standard camcorder batteries and an independent charger, enabling a long field usage time
- Rugged construction and, with an IP 54 rating, enabling use almost anywhere
- Comprehensive PC software suite for an unlimited number of users enables advanced image analysis and professional report writing

Price Each

Order Code	Product Code	Description	1+
WX63808 ‡	TKT1-21	Thermal Camera	£2,038.82

‡ Special delivery applies. Please ask for details

SKF Thermal Camera TKT1 31



SKF

NEW

- High-resolution thermal camera for plant and building inspections
- Plant and building inspectors can quickly and easily detect troublesome hot and cold spots with the user friendly Thermal Camera TKT1 31
- Equipped with a high-resolution thermal detector of 380 x 280 pixels and a visual camera, the TKT1 31 caters to a wide range of applications
- A high thermal sensitivity of just 0.06 °C allows small temperature differences to be clearly displayed
- A wide temperature measurement range of -20 to +600 °C (-4 to 1 112 °F) makes the TKT1 31 suitable for many proactive maintenance programmes and high temperature applications
- High thermal sensitivity enables applications, such as air ingress and building moisture, to be easily visualised where small temperature variations matter
- Visual and audible temperature limit alarm function alerts the user to abnormal conditions
- Automatic hot and cold spot cursors quickly pinpoints the extremes in a scene
- Up to five moveable temperature cursors/areas with individual emissivity settings for analysing complex scenes
- Temperature difference of two cursors can be displayed on screen enabling quick and easy temperature comparisons
- Isotherms, temperature gradients and area analysis boxes for advanced scene analysis
- Thermal sensitivity: NETD ≤ 60 mK (0.06 °C) at 23 °C (73 °F) ambient and 30 °C (86 °F) scene temperature
- Built-in emissivity tables allow for easy emissivity value setting
- Eleven selectable colour pallets for ease of use
- Field of View 25x19°, Frame rate and image frequency 9Hz
- Images can be voice annotated for later reviewing with the 2GB micro SD card provided
- Video output function allows the live image to be shown on an external display, useful when showing to a group of people
- Fully radiometric thermal and visual images are stored on the micro SD card provided
- Supplied with two standard camcorder batteries and with an independent charger, allowing for long field usage
- Rugged construction and, with an IP 54 rating, enabling use almost anywhere
- Comprehensive PC software suite for an unlimited number of users enables advanced image analysis and professional report writing

Price Each

Order Code	Product Code	Description	1+
WX63809 ‡	TKT1-31	Thermal Camera	£4,457.32

‡ Special delivery applies. Please ask for details

Fluke Ti90 and Ti95 Thermal Imagers



FLUKE

NEW

- Ti90 and Ti95 Wireless industrial thermal imagers that benefits from Fluke Connect™ by seamlessly gathering and sharing inspection results instantly
- Temperature measurement range: -20 °C to +250 °C (-4 °F to +482 °F)
- One-handed image capture, review, and save capability
- Engineered to withstand 2 meter (6.5 feet) drop
- 80x60 resolution (4,800 pixels) Ti90 and 80x80 resolution (6,400 pixels)
- Get context for the infrared image by switching to the full visible (IR-Fusion® AutoBlend™ mode and Picture-in-Picture available in SmartView® software) Ti95 only
- 2 megapixel built-in digital camera
- 3.5inch LCD
- Smart Battery System - Lithium ion smart battery pack with five-segment LED display to show charge level
- Rugged, lightweight, point-and-shoot thermal imager
- Supplied with: Power adapter, Lithium ion smart battery (1), Removable 4GB USB cable, SD memory card, 8 GB Fluke Connect™ wireless SD Card, Soft transport bag, Users' manual, SmartView® software, Warranty registration card

Technical Specification

Infrared resolution	80x60 (Ti90), 80x80 (Ti95)
Focus mechanism	Focus-free: ~48" and beyond
Thermal sensitivity (NETD)	≤ 0.10 °C (Ti90), ≤ 0.10 °C (Ti95) at 30 °C target temp (150 mK) Ti90, (100 mK) Ti95
Temperature measurement range (not calibrated below -10 °C)	-20 °C to +250 °C (-4 °F to +482 °F)
Temperature measurement accuracy	± 2 °C or 2 % (at 25 °C nominal, whichever is greater)
Rechargeable batteries (4+ hours each)	1 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and integrated lens cap
Weight	0.73 kg (1.63 lbs.)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX63810 ‡	Ti90	Ti90 Thermal Imager	£995.00
WX63811 ‡	Ti95	Ti95 Thermal Imager	£1,295.00

‡ Special delivery applies. Please ask for details

Fluke Ti100 Thermal Imager



FLUKE

- The Ti100 is the perfect general-purpose thermal imager designed specifically for the cost-conscious professional. It delivers incredible imaging at a great value and is the only ultra-rugged, one-handed professional thermal imager in its price class
- Temperature measurement range: -20 °C to +250 °C (-4 °F to +482 °F) Thermal sensitivity: ≤ 0.10 °C at 30 °C target temp (100 mK)
- **Focus-free infrared**
The Ti100 offers the highest performing one-handed, focus-free infrared system available. From four feet (1.2 M) and beyond you'll always be in good focus no matter what you're inspecting
- **Laser pointer**
A laser pointer allows you to accurately point to an area of concern to a colleague or customer
- **Built rugged**
The new Fluke imagers are the most rugged and reliable, lightweight professional point-and-shoot thermal imagers on the market. They've been put through a battery of tests, including two-meter drops, vibration, extreme temperature and humidity, and electromagnetic/radio frequency interference testing to ensure they survive in your environment
- **One-hand operation**
The Ti100 has been designed for simple, one-handed operation. Its lightweight, slim profile makes it easy to operate in either landscape or portrait format – your choice. All so you'll have one hand free to steady yourself or hold another tool

Technical Specification

Infrared resolution	160 x 120
Focus mechanism	Focus-free: ~48" and beyond
Thermal sensitivity (NETD)	≤ 0.10 °C at 30 °C target temp (100 mK)
Temperature measurement range (not calibrated below -10 °C)	-20 °C to +250 °C (-4 °F to +482 °F)
Temperature measurement accuracy	± 2 °C or 2 % (at 25 °C nominal, whichever is greater)
Laser pointer/torch?	Laser pointer only
Rechargeable batteries (4+ hours each)	1 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and integrated lens cap
Weight	0.726 kg (1.63 lbs.)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX54175 ‡	Ti100	Ti100 Thermal Imager	£1,650.00

‡ Special delivery applies. Please ask for details

Fluke Ti105 Thermal Imager



FLUKE

- Industrial and commercial maintenance made easy
- Technology isn't working for you if it's slowing you down. The Fluke Ti100 Series thermal imagers specifically designed to help you do more in less time, while being at home in the harshest of environments. Light, rugged, easiest-to-use professional imagers
- IR-Fusion[®] technology
- Enjoy the industry's best point-and-shoot IR-Fusion camera. Fluke patented technology blends digital and infrared images into a single image to precisely document problem areas.
- Rugged one-hand operation
- Experience the most rugged and reliable, lightweight professional camera around. One-touch focus, laser pointer, and torch. Point-and-shoot simplicity. No one builds more rugged, ergonomic tools than Fluke.

Technical Specification

Ti105	
Infrared resolution	160 x 120
Focus mechanism	Focus-free: 1.2m and beyond
Temperature measurement range	-20°C to +250°C
IR-Fusion	Full infrared, PIP, Full visible
technology	
Laser pointer/torch	Laser Pointer and torch
Rechargeable batteries (4+ hours each)	1 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and intergrated lens cap
Weight	0.726 kg (1.63 lbs)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX60883 ‡	Ti105	Thermal Imager	£2,083.00

‡ Special delivery applies. Please ask for details

Fluke Ti110 Thermal Imager



FLUKE

- Industrial and commercial maintenance made easy
- Technology isn't working for you if it's slowing you down. The Fluke Ti100 Series thermal imagers specifically designed to help you do more in less time, while being at home in the harshest of environments. Light, rugged, easiest-to-use professional imagers.
- IR-OptiFlex[™] focus system
- Discover issues significantly faster with Fluke's revolutionary, ultra-rugged focus system. The IR-OptiFlex focus system gives you optimum focus by combining focus-free ease-of-use with the flexibility of manual focus on the same camera!
- IR-Fusion[®] technology
- Enjoy the industry's best point-and-shoot IR-Fusion camera. Fluke patented technology blends digital and infrared images into a single image to precisely document problem areas
- Rugged one-hand operation
- Experience the most rugged and reliable, lightweight professional camera around. One-touch focus, laser pointer, and torch. Point-and-shoot simplicity. No one builds more rugged, ergonomic tools than Fluke.

Technical Specification

Ti110	
Infrared resolution	160 x 120
Focus mechanism	IR-Optiflex focus
Temperature measurement range	-20°C to +250°C
IR-Fusion	Full infrared, PIP, Full visible, colour alarm
technology	
IR-Photonotes [™] annotation system	Yes
Electronic compass	Yes
Multi-mode video recording	.AVI w/MPEG encoding
Voice annotation	Yes (60 seconds)
Laser pointer/torch	Laser Pointer and torch
Rechargeable batteries (4+ hours each)	1 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and intergrated lens cap
Weight	0.726 kg (1.63 lbs)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX60884 ‡	Ti110	Thermal Imager	£3,295.00

‡ Special delivery applies. Please ask for details

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Test & Measurement

Fluke Ti125 Thermal Imager



FLUKE

- Industrial and commercial maintenance made easy
- Technology isn't working for you if it's slowing you down. The Fluke Ti100 Series thermal imagers specifically designed to help you do more in less time, while being at home in the harshest of environments. Light, rugged, easiest-to-use professional imagers. IR-OptiFlex™ focus system
- Discover issues significantly faster with Fluke's revolutionary, ultra-rugged focus system. The IR-OptiFlex focus system gives you optimum focus by combining focus-free ease-of-use with the flexibility of manual focus on the same camera!
- IR-Fusion® technology
- Enjoy the industry's best point-and-shoot IR-Fusion camera. Fluke patented technology blends digital and infrared images into a single image to precisely document problem areas
- Rugged one-hand operation
- Experience the most rugged and reliable, lightweight professional camera around. One-touch focus, laser pointer, and torch. Point-and-shoot simplicity. No one builds more rugged, ergonomic tools than Fluke
- Multi-mode video recording
- Troubleshoot with the thermal imager that recording focus-free video invisible light and infrared with full IR-Fusion capabilities. Monitor processes over time, easily create infrared video reports, and troubleshoot.
- IR-PhotoNotes™ annotation system
Get an exact reference to your problem area by capturing up to three digital photos per file. Add images of equipment, motor nameplates, workroom doors or any other useful or critical information.

Technical Specification

Ti125	
Infrared resolution	160 x 120
Focus mechanism	IR-OptiFlex focus
Temperature measurement range	-20°C to +250°C
IR-Fusion® technology	Full infrared, PIP, Full visible, colour alarm
IR-PhotoNotes™ annotation system	Yes
Electronic compass	Yes
Multi-mode video recording	AVI w/MPEG encoding and .IS3 radiometric
Voice annotation	Yes (60 seconds)
Laser pointer/torch	Laser Pointer and torch
Streaming video output	USB video output
Rechargeable batteries (4+ hours each)	2 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and integrated lens cap
Weight	0.726 kg (1.63 lbs)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX60885 ‡	Ti125	Thermal Imager	£4,125.00

‡ Special delivery applies. Please ask for details

Dewalt 10.8V XR Li-Ion Imaging Thermometer



- Patented imaging thermometer technology measures and displays temperature patterns
- Non-contact temperature measurement over a range of -10°C to 250°C
- Visual and thermal images can be blended to easily locate and identify faults
- Adjustable emissivity improves accuracy across a wide range of materials
- 56mm Colour LCD screen
- Intuitive user interface
- Photo capture and Micro SD Data recording
- Infrared Resolution - 15 x15 (225 pixel's) when temperature scanning.
- Visible Imaging Resolution - 105 x105 (11,025 pixel's) when an image is being taken.
- Screen Resolution - 320x240 (76,800 pixel's) through the view finder.
- Printed Photo Resolution - 210x137 (28,770 pixel's) when printing out an image.

Standard Equipment: 1 x 2.0Ah XR Li-Ion battery pack, charger, 2GB Micro SD card, Heavy duty kitbox

Price Each

Order Code	Product Code	1+	3+
WX60597	DCT416D1-GB	£920.00	POA

For Lockouts and Tagouts, see our Site Safety section

Condition & Vibration Monitoring

Fluke 805 Vibration Meter



FLUKE

The reliable, repeatable, accurate way to check bearings and overall vibration. Make go or no-go maintenance decisions with confidence. The Fluke 805 Vibration Meter is a reliable vibration screening device available for front line mechanical troubleshooting teams that need repeatable, severity scaled readings of overall vibration and bearing condition

- Innovative sensor design minimizes measurement variations caused by device angle or contact pressure
- Consistent data quality at both low and high frequency ranges
- Four-level severity scale assesses urgency of problems for overall vibration and bearing condition
- Exportable data via USB
- Trending Microsoft® Excel using built-in templates
- Store data and machine ID and export to excel for data trending
- Overall vibration measurement (10 Hz to 1,000 Hz) for acceleration, velocity and displacement units of measurement for a wide variety of machines
- Crest Factor + technology provides reliable bearing assessment using direct sensor tip measurements between 4,000 Hz and 20,000 Hz
- Coloured lighting system (green, red) and on-screen comments indicate how much pressure needs to be applied to take measurements
- Infrared temperature sensor increases diagnostic capabilities
- On-board memory holds up to 3,500 measurement
- Audio output for listening to bearing tones directly
- External accelerometer support for hard to reach locations
- Flashlight for viewing measurement locations in dark areas
- Large screen with high resolution for easy navigation and viewing

Vibration Meter

Low frequency range (Overall Measurement)	10 Hz to 1,000 Hz
High frequency range (CF + measurement)	4,000 Hz to 20,000 Hz
Severity Levels	Good, satisfactory, unsatisfactory, unacceptable
Vibration limit	50g peak (100g peak-peak)
AVD Converter	16-Bit
Signal to noise ratio	80dB
Sampling rate	
Low frequency	20,000 Hz
High frequency	80,000 Hz
Real time clock backup	Coin battery

Sensor

Sensitivity	100mV / g ± 10%
Measurement range	0.01g to 50g
Low frequency range (Overall Measurement)	10 Hz to 1,000 Hz
High frequency range (CF + measurement)	4,000 Hz to 20,000 Hz
Resolution	0.01g
Accuracy	At 100 Hz ± 5% of measured value
Amplitude units	
Acceleration	g, m/sec²
Velocity	in/sec, mm/sec
Displacement	mils, mm

Price Each

Order Code	Product Code	Description	1+
WX60886	805	Vibration Meter	£1,195.00

Fluke 810 Vibration Tester



FLUKE

- On-board identification and location of the most common mechanical faults (bearings, misalignment, unbalance, looseness) focus maintenance efforts on root cause, reducing unplanned downtime
- Fault severity scale with four severity levels helps you prioritize maintenance work
- Repair recommendations advise technicians on corrective action
- On-board context sensitive help provides real-time tips and guidance to new users
- 2 GB expandable on-board memory provides enough space for your machinery's data
- Self-test function ensures optimal performance and more time on the job
- Laser tachometer for accurate machine running speed promotes confident diagnoses
- Tri-axial accelerometer reduces measurement time by 2/3 over single axis accelerometers
- Viewer PC Software expands data storage and tracking capacity

Use the Fluke 810 Vibration Tester to:

- Troubleshoot problem equipment and understand the root cause of failure
- Survey equipment before and after planned maintenance and confirm the repair
- Commission new equipment and ensure proper installation
- Provide quantifiable proof of equipment condition and drive investment in repair or replacement
- Prioritize and plan repair activities and operate more efficiently
- Anticipate equipment failures before they happen and take control of spare parts inventories
- Train new or less-experienced technicians and build confidence and skill across the team

Includes:

- Vibration Tester with diagnostic technology
- Tri-axial accelerometer, magnet mount, mounting pad kit with adhesive, accelerometer quick-disconnect cable
- Laser tachometer and storage pouch
- Smart battery pack with cable and adapters
- Shoulder strap and adjustable hand strap
- Viewer PC software
- Mini USB to USB cable
- Getting Started Guide, illustrated quick reference guide, Users Manual CD-ROM,
- Carrying case

Please ask your local Brammer Branch or Sales Representative for more information and a possible demonstration

Price Each			
Order Code	Product Code	Description	1+
WX54174 ‡	810	Vibration Meter	POA

‡ Special delivery applies. Please ask for details

The SKF Machine Condition Advisor



- Designed to help simplify machine maintenance and prevent costly failures, the handheld SKF Machine Condition Advisor puts the benefits of machine monitoring within reach for any maintenance and operations teams
- By measuring machine vibration and temperature at the same time, the SKF Machine Condition Advisor can quickly and accurately assess the condition of rotating equipment throughout your facility
- Ideal for novice and expert users alike, the SKF Machine Condition Advisor makes it easy to implement basic maintenance practices without extensive training
- Suitable for a wide range of industrial rotating machinery, the SKF Machine Condition Advisor provides early warning of potential problems before failures occur
- Applications
 - Medium-sized and electrical machines (160-315mm shaft heights)
 - Large-sized and electrical machines (315mm+ shaft heights)
 - Multi-vane impeller pumps, integrated drivers, and more
- The SKF Machine Condition Advisor provides an overall "Velocity" vibration reading that measures vibration signals from the machine and automatically compares them to pre-programmed ISO standards. Simultaneously, the unit applies an SKF technique called "Enveloped Acceleration" and compares it to established bearing vibration guidelines to indicate conformity or potential bearing damage
- The SKF Machine Condition Advisor also measures temperature using an infrared sensor to indicate uncharacteristic heat
- Lightweight, compact, and ergonomically designed, the SKF Machine Condition Advisor fits neatly in the belt holster, in a pocket or in a toolkit
- Exceptionally durable, the unit is rated IP 54 for use in harsh operating environments
- Internal Vibration Sensor-integrated piezoelectric accelerometer
 - Range: 0.7-65 mm/s (RMS) 0.04-3.60 in/s meets ISO 10816
 - Frequency Range: 10-1000 Hz meets ISO 2954
- Optional remote accelerometer/sensor with cable and magnet for Machine Condition Advisor (CMAS 100-SL)
 - Temperature Sensor: internal IR temp. sensor
 - Temp Range: -20 to 200 degrees C (-4 to 392 F)
 - IR Temp Accuracy: +/- 2 C (+/- 3.6 F)
 - Distance: Maximum 10 cm (4 in) from target.
 - Dimensions: length 200 mm width 47 mm height 25.4 mm
 - Weight: 125 g (4.4 oz)

Price Each

Order Code	Product Code	Description	1+
WX51149 ‡	CMAS-100-SL	Machine Condition Advisor	£1,250.00
WX63812 ‡	CMAC-112-K	Sensor with cable	£465.00

‡ Special delivery applies. Please ask for details

The SKF Machine Condition Indicator



- The SKF Machine Condition Indicator (MCI) is an economical single axis vibration monitor which can be stud or glue mounted
- Suitable for permanent monitoring of semi-critical machinery in plants with constant operating conditions & speeds from 900 – 3600 rpm
- The MCI measures:
 - Velocity for overall machine health (misalignment, imbalance etc)
 - Enveloped Acceleration to detect bearing degradation
 - Checks surface temperature
- The MCI has also built-in intelligence to avoid false alarming
- 3 year battery life (with one unacknowledged alarm)

- **CMSS 200-02-SL** SKF Machine Condition Indicator includes: Two battery operated units, Two CMAC 225 read-keys (magnets), Two CMAC 230 threaded mounting studs (1/4-28 to 1/4-28), Two CMAC 231 adapter mounting studs (1/4-28 to M8), Two CMAC 200-REF reference cards, One Installation Instruction card, One product reference CD
- **CMSS 200-10-SL** SKF Machine Condition Indicator includes: 10 battery operated units, Four CMAC 225 read-keys (magnets), Four CMAC 200-REF reference cards, Two Installation Instruction cards, One product reference CD
- **CMSS 200-50-SL** SKF Machine Condition Indicator includes: 50 battery operated units, 10 CMAC 225 read-keys (magnets), CMAC 200-REF reference cards, Five Installation Instruction cards, One product reference CD
- **CMAC-112-K** The extension sensor kit contains an accelerometer with 0.95m (2.3m extended) coiled integral cable (CMAC 111) and magnet (CMAC 109) with mounting stud
- This kit is needed to take measurements from hard-to-reach places and for more repeatable and accurate measurement results
- The mounting studs are not included in the 10-pack CMSS 200-10-SL or 50-pack CMSS 200-50-SL and must be ordered separately

Price Each

Order Code	Product Code	Description	1+
WX60888	CMSS200-02-SL	MCI PK2	£312.50
WX60889 ‡	CMSS200-10-SL	MCI PK10	£1,350.00
WX60890 ‡	CMSS200-50-SL	MCI PK50	£4,895.00

Price Each

Order Code	Product Code	Description	1+
WX63812 ‡	CMAC-112-K	Extension Sensor Kit	£465.00
WX60892 ‡	CMAC231-10	Adaptor Mount Stud PK10	£32.50
WX60893 ‡	CMAC231-50	Adaptor Mount Stud PK50	£175.00

‡ Special delivery applies. Please ask for details

Wireless MicroVibe



SKF

NEW

- The SKF Wireless MicroVibe in conjunction with a suitable android tablet or smart phone provides the functionality of a portable data collector and analyzer
- This versatile and easy-to-use wireless tool identifies problems and assesses machine condition safely, quickly and easily
- Reliable and fast wireless data collection (WiFi) from a safe distance
- Low cost, compact and lightweight
- Expert judgment criteria based on ISO vibration severity standard and SKF bearing condition evaluation
- FFT spectrum analysis enables user to pinpoint problems like unbalance, misalignment, bearing, rubs, etc
- Multi-point automation for faster data collection with standard vibration measurements
- Envelope acceleration, acceleration, velocity and displacement in both FFT spectrum and time waveform displays
- Transfer machinery vibration data to a computer for trending and further analysis to the Data Management Software
- A handy "quick-check" solution, based on the universal Android platform, SKF Wireless MicroVibe is simple to use
- Built-in automatic functions virtually eliminate setup, while analytical displays and automatic judgment of machine vibration readings help users identify machine problems on the spot!
- An advanced instrument for simplified vibration assessment
- Multi-point automation saves time and improves reliability
- FFT spectrum analysis capabilities
- With pre-set measurements and user selectable FFT resolution up to 12 800 lines, selectable Fmax, and a 90dB dynamic range, the SKF Wireless MicroVibe has what it takes to help you easily pinpoint impending machine problems
- Cursor position readout with display zoom optimizes your analysis power. In addition, it automatically tabulates and displays the highest vibration peaks from a spectrum, making it easy to quickly identify signals indicative of specific machine problems, like misalignment, imbalance or bearing faults
- Time waveform displays -Measure and store time waveform data with the capability to select measurement type and duration
- Time waveform displays are available for acceleration, velocity, displacement or enveloped acceleration measurements
- Store and recall measurements for trending and analysis
- The SKF Wireless MicroVibe offers added functionality, including a software program for Windows 7 to extract, save, edit and display collected data. It is ideal for small route data collection
- Operating temperature: 5 to 50 °C (40 to 120 °F), driven by the battery
- Humidity: 30 to 90%, non-condensing
- Frequency range: Acceleration (A): 10 Hz to 30 kHz, Velocity (V): 10 Hz to 1 kHz, Displacement (D): 10 to 150 Hz, Enveloped Acceleration (E1): 5 to 100 Hz, Enveloped Acceleration (E2): 50 Hz to 1 kHz, Enveloped Acceleration (E3): 500 Hz to 10 kHz with Fmax of 5 kHz and 10 kHz

Price Each

Order Code	Product Code	Description	1+
WX63813 ‡	CMVL4000-EN	Wireless MicroVibe	£3,250.00

‡ Special delivery applies. Please call for details

Pen Vibration Meter



EXTECH
A FLIR COMPANY

- Measures RMS Acceleration and Velocity with metric and imperial units
- Ranges — Acceleration (RMS): 656ft/s²; 20.39g; 200m/s²
- Velocity (RMS): 7.87in/s; 2.00cm/s; 200mm/s
- Wide frequency range of 10Hz to 1kHz
- Resolution to 1ft/s²
- 0.01g; 0.1m/s² and 0.02in/s; 0.01cm/s; 0.1mm/s
- Basic accuracy of ±(5% + 2 digits)
- Zero adjustment
- Data Hold freezes the reading in the display
- Water and dust resistant to IP65
- Low battery indicator
- Complete with test pin tip, magnetic base, 4 x AAA batteries and pouch case

Order Code	Product Code	Description	1+	3+
WX60894 ‡	VB400	Vibration Pen	£371.47	POA

‡ Special delivery applies. Please call for details

Electronic Stethoscope TMST 3



SKF

- The noise or vibration from the machine is picked up by the stick probe and transmitted to a transducer
- In the transducer the vibrations are converted into an electrical signal, which is processed and amplified by the electronics of the instrument
- The handset has two outputs for the amplified signal
- One is for connecting the headset, the other to connect a tape recorder
- The headset is an approved ear defender in accordance with EN 352-1.1993 and pr EN 352-3

- Application:
For detecting, tracing and diagnosing the source of all kinds of machinery noise. Damaged bearings, valve chatter, tappet noise, piston slap, gear and pump noise

- Technical Data:
Frequency range; 30 Hz-15kHz
Operating temperature; -10 to +45° C (14-113° F)
Output volume; Adjustable in 32 levels
Led indicator; Power on, Sound volume, Battery low
Maximum recorder output; 250 mV
Headset; 48 Ohm (with ear defender)
Auto switch off; Yes, after 2 min
Battery; 4 x AAA/RO3 (included)
Battery lifetime; 30 hours (continuous use)
Dimensions; handset 220 x 40 x 40 mm (8,6 x 1,6 x 1,6 in)
Probe length; 70 and 220 mm (2,8 and 8,7 in)
Weight; Total weight 1 560 g (3,4 lb)

Price Each

Order Code	Product Code	Description	1+
WX36066 ‡	TMST3	Stethoscope	£512.06

‡ Special delivery applies. Please call for details

Vibration Pen



CEV

- Measurement range RMS vibration velocity 0.1mm/s to 199.9mm/s
- Frequency range 10 Hz to 1 kHz
- Display 4 digit LCD display
- Hold value of last reading
- Accelerometer integrated
- Power supply 1.5V button cell batteries (2 pcs)
- Auto shut-off after 40 seconds
- Battery capacity approx 5 hours continuously
- Operating temperature 0°C to 40°C, < 85% RH
- Dimensions 150mm x 22mm x 18mm
- Weight approx 55gr including batteries

Price Each

Order Code	Product Code	Description	1+	3+
WX37244 ‡	W-TV200	Vibration Pen	£439.00	POA

‡ Special delivery applies. Please call for details

TPI 9070 Vibration Analyser



Tpi

- The VibMeter 9070 is a simple to use vibration analyser. Results of the analysis are easy to understand with colour coded alarm screens.
- Overall vibration values with colour coded alarm levels for ISO values, bearing condition and machine fault diagnosis.
- High resolution zoom-able vibration spectrum display with fully dynamic cursor displaying frequency and amplitude values
- Frequency band alarms based on run speed (RS) can be used to diagnose machine faults due to unbalance (1x RS), misalignment (2x RS) and looseness (3x RS)
- Size 200 mm x 60 mm x 26 mm
- Weight 280g (not including magnet)
- Environmental
Water, Sand & Dust: IP67 Waterproof
Operating: 0°C to 50°C
Storage: -20°C to 70°C
- Power supply 2 x AA batteries
- Battery life Auto power OFF - typically 50 hours operating time depending on brightness setting.
- Frequency range 2 Hz to 1 kHz (ISO), 1 kHz to 10 kHz (BDU)
- Max frequency resolution 1.25 Hz @ 800 lines FFT setting
- Displayed Vibration Amplitude Units Acceleration in g
- Velocity in mm/s (or inches/s)
- Bearing noise in BDU (bearing damage units)
- Displayed Frequency Units Hertz (Hz), RPM or CPM
- Input range +/- 50g
- Dynamic range 72 dB (0.05g resolution)
- VA diagnostic bands
(RPM = run speed) Unbalance 1x RPM
Misalignment 2x RPM
Looseness 3x RPM
- Accessories: Screw in probe tip (1/4" UNF 28), Nylon carrying case
- Options: Accelerometer mounting magnet, Extended probe tip (stinger)

Price Each

Order Code	Product Code	Description	1+
WX60895	9070	Vibration Meter	£320.00
WX60899 ‡	A9073	Accelerometer Magnet	£82.00

‡ Special delivery applies. Please call for details

TPI 9080-PRO Vibration Analyser with Trending Software



- The VibMeter 9080-PRO is a simple to use vibration analyser with PC based trending software. Results of the analysis are easy to understand with colour coded alarm screens. Exception warnings can be automatically e-mailed to designated people.
- Overall vibration values with colour coded alarm levels for ISO values, bearing condition and machine fault diagnosis
- High resolution zoom-able vibration spectrum display with fully dynamic cursor displaying frequency and amplitude values
- Frequency band alarms based on run speed (RS) can be used to diagnose machine faults due to unbalance (1x RS), misalignment (2x RS) and looseness (3x RS)
- VibTrend software enables PC based trending of an unlimited number of machines with up to ten measurement points per machine
This graphical trending over time is a powerful tool in identifying wear in equipment over time – and scheduling maintenance to avoid failures
- Up to 1,000 Machines can be loaded from VibTrend as a route to the 9080-PRO
- The 9080-PRO kit includes: 9080, BNC accelerometer, accelerometer magnet, unrestricted VibTrend software and USB docking cradle.
- Size 200 mm x 60mm x 26mm
- Weight 280g (not including sensor)
- Environmental
Water, Sand & Dust: IP67 Waterproof
Operating: 0°C to 50°C
Storage: -20°C to 70°C
- Power supply 2 x AA batteries
- Battery life Auto power OFF - typically 50 hours
- operating time depending on
- brightness setting.
- Frequency range 2 Hz to 1 kHz (ISO), 1 kHz to 10 kHz (BDU)
- Max frequency resolution 1.25 Hz @ 800 lines FFT setting
- Displayed Vibration
- Amplitude Units
- Acceleration in g
- Velocity in mm/s (or inches/s)
- Bearing noise in BDU (bearing damage units)
- Displayed Frequency Units
Hertz (Hz), RPM or CPM
- Input range +/- 50g
- Dynamic range 72 dB (0.05g resolution)
- VA diagnostic bands, (RS = run speed), Unbalance 1x RS, Misalignment 2x RS, Looseness 3x RS
- Options:
Tacho strobe/flashlight attachment
Bluetooth headphones/ear defenders

Price Each

Order Code	Product Code		1+
WX60896	9080-PRO	Vibration Meter	£990.00
WX60897 ‡	A9081	Docking Cradle	£35.00
WX60898 ‡	A9012	BNC Accelerometer	£168.00
WX60899 ‡	A9073	Accelerometer Magnet	£82.00
WX60900 ‡	A9080	Bluetooth Headphones	£390.00
WX60901 ‡	A9082	Tacho Strobe/Light	£75.00
WX60902 ‡	A9072	100mm Stinger	£45.00

‡ Special delivery applies. Please call for details

TPI 9041 Ultrall Condition Monitor



NEW

- The TPI Model 9041 Ultra II represents the very latest in easy to use high specification maintenance tools, offering extremely high levels of functionality and capability at a very affordable price! As a high spec condition based monitoring (CBM) data collector and Dynamic 2 plane rotor balancer designed for plant and asset inspections, the Ultra II does it all
- Automatically detects out of balance, misalignment, looseness and bearing defects
- Predictive analysis capabilities that accurately calculate time frame to failure
- Condition based monitoring analyses bearing wear and gear degradation
- Built-in single plane balancing enables correction of the most common cause of vibration. (Dual plane balancing with additional accelerometer)
- Additional features include Inspection, Lube and remote/server database
- User selectable defined envelope filters and demodulation functionality
- True simultaneous 3 channel capture
- High resolution (0.2Hz) frequency spectra from 2Hz to 10kHz
- Rugged fully waterproof construction meets IP68 and MIL-STD-810F requirements
- Includes C-Trend powerful and easy to use asset management and fault diagnosis software
- Store, analyze and report on all your vibration, lube and process parameters (e.g. oil pressures, lube volume, temperature, run hours, etc.) in one place
- All information is just a click away. Color coded alarms highlight problems. Trend lines show problems before they happen.
- Data can be accessed anywhere on any machine, with optional networking software. Plant history is everything and C-Trend turns it into useful information with the click of a mouse!
- Condition Based Maintenance data collector Displays sites, assets and measurements in a "tree" structure to give easy navigation of routes and capture of readings using touch screen and numeric keypad
- Analyses and displays ISO vibration levels, bearing wear, unbalance, misalignment, looseness etc.
- Color coded with alarm status (red, amber & green).
- Fully zoom-able frequency spectrum and time waveforms
- All data automatically downloaded to C-Trend (PC trending analysis and reporting software included as standard)
- Optional auto identification of measurement points using RFID tags with easy to use set up wizards
- Single and two plane dynamic balancersoftware included, you need an additional accelerometer A9012 for two plane balancer
- Balances to user defined grades using simple to use step by step balancing wizard
- Live vector display shows out of balance and phase angle during balancing runs (ideal for checking stability)
- Built-in tool kit for trial weight calculation, weight splitter, drill depth (for weight removal), coast down etc.
- Downloads all balance data and graphs to PC full color report generator wizard
- Frequency ranges 2 Hz to 1 kHz, 2 Hz to 10 kHz
- Frequency Resolution Up to 0.02 Hz: 400, 800, 1600, 3200, 6400, 12800, 25,600 or 51,200 lines FFT
- Displayed Amplitude Units: Acceleration in g, Velocity in mm/s (or inches/s), Bearing noise in BDU (bearing damage units), Displacement in Microns/Mils
- Displayed Frequency Units: Hertz (Hz), RPM or CPM
- Dynamic range 96 dB +/- 50g to +/- 50g with standard accelerometer
- Auto set up of VA diagnostic bands (RPM = run speed)
- Instability, unbalance, misalignment & diagnostic bands looseness
- Envelope demodulation filters: Fully user selectable high pass and low pass filter cut off frequencies
- IEPE accelerometer interface: Constant current accelerometer power supply (+20 volts @ 2mA) can be switched off for use w/BNC output control panels Supplied with BNC connection lead
- Numeric Keypad or Touch screen operation: Stylus free collection of vibration data using numeric key pad or by touching screen
- Included accessories: Tachometer, accelerometer (one) and cables, tachometer mount adapter, Carrying case with shoulder strap

Price Each

Order Code	Product Code		1+
WX60903 ‡	9041	Ultra II	£4,500.00

‡ Special delivery applies. Please call for details

4-Channel Vibration Meter/Data Logger



- Large backlit LCD display simultaneously displays four channels
- Selectable data sampling rate: 1, 2, 5, 10, 30, 60, 120, 300, 600, 1800, 3600 seconds
- Remote vibration sensor with magnetic adapter on 39"(1m) cable
- Wide frequency range of 10Hz to 1kHz
- Basic accuracy of $\pm(5\% + 2 \text{ digits})$
- RMS or Peak Value measurement modes
- Data Hold, Auto Power Off
- Complete with 4 remote sensors, magnetic mounts, 8 x AA batteries, 100-240V Universal AC, Adaptor, SD card, and durable hard carrying case

Price Each

Order Code	Product Code	Description	1+	3+
WX60905 ‡	VB500	4Ch Vibration Meter	£2,684.98	POA

‡ Special delivery applies. Please call for details

Vibration Meter/Data Logger



- Remote vibration sensor with magnetic adapter on 47.2"(1.2m) cable
- Wide frequency range of 10Hz to 1kHz
- Basic accuracy of $\pm(5\% + 2 \text{ digits})$; Meets ISO2954
- RMS, Peak Value or Max Hold measurement modes
- Adjustable data sampling rate
- Offset adjustment used for zero function to make relative measurements
- Large backlit LCD
- Stores 99 readings manually and 20M readings via 2G SD card
- Record/Recall MIN, MAX, Data Hold and Auto power off
- Built-in PC interface
- Complete with remote sensor, magnetic mount, 6 x AA batteries, SD card, and hard carrying case

Price Each

Order Code	Product Code	Description	1+	3+
WX60906 ‡	SDL800	Vibration Meter	£668.68	POA

‡ Special delivery applies. Please call for details

Multimeter for Adjustable Speed Drives

Introduction to the Fluke 87

- In the past, motor repair meant dealing with traditional three-phase motor failures that were largely the result of dust, failed bearings, misaligned shafts, or just plain old age. But motor repair has changed in a big way with the introduction of electronically controlled motors, more commonly referred to as adjustable speed drives (ASDs). These drives present a unique set of measurement problems.
- Thanks to new technology (the new Fluke 87 Series V), now for the first time you can take accurate measurements with a DMM during the installation and maintenance of a drive and diagnose bad components and other conditions that may lead to failure.

Fluke 87 V Multimeter



FLUKE

- The Fluke 87 Series V is the ideal multimeter for measuring adjustable speed drives
- The meter offers high accuracy and all the measurement functions you need
- Accurate voltage and frequency measurements on PWM output of motor drives (patent pending)
- Built-in thermometer (probe included)
- AC True RMS measurements
- 4000 count resolution (20,000 count in high resolution mode)
- 20 kHz bandwidth
- Digital display with bargraph and backlight
- Min/max/average recording
- 50 μ s Fast Min-Max
- Touch Hold and relative modes
- Frequency, capacitance and duty cycle measurements
- Resistance, conductance, continuity and diode measurements
- Easy battery access without breaking the calibration seal
- Input alert warns when the leads are in the wrong inputs
- Classic design with removable holster
- Lifetime warranty
- Meets latest CAT IV safety standards

Functions	Maximum Range
Voltage DC	1000 V
Voltage AC	1000 V
Current DC	10A
Current AC	10A
Resistance	50M Ohm
Conductance	60nS
Capacitance	9999 μ F
Frequency	>200kHz
Temperature	-200 to 1090 °C
80BK temperature probe	-40 to 260 °C

Max. Resolution	Accuracy
10 μ V	$\pm(0.05\%+1)$
10 μ V	$\pm(0.7\%+2)$
0.01 μ A	$\pm(0.2\%+2)$
0.01 μ A	$\pm(1.0\%+2)$
0.01 Ohm	$\pm(0.2\%+1)$
0.001nS	$\pm(1.0\%+10)$
0.01nF	$\pm(1.0\%+2)$
0.01Hz	$\pm(0.005\%+1)$
0.1 °C	2.2 °C or 2%

Order Code	Product Code	Description	1+	4+
WX30980	87V	87V Meter	£399.00	POA

Heavy Duty Multimeter

EXTECH EX510



EXTECH
A FLIR COMPANY

- Waterproof (IP67) and drop-proof (6ft)
- Dual sensitivity frequency functions
- 0.09% basic accuracy
- CAT IV-600V

Function	
Display	6000 count
Basic DCV accuracy	0.09%
AC/DC Current	20A
AC/DC Voltage	1000V
DC Voltage	600 V
Resistance	60M Ω
Frequency (electrical)	400Hz
Frequency (electronic)	40MHz
Duty Cycle	0.1 to 99.9%

Order Code	Product Code	1+	4+
WX43945	EX510	£110.38	POA

Insulation Multimeters

1587/1577 Insulation Multimeter



FLUKE

- Two products in one: powerful insulation tester and full-featured multimeter
- Provides maximum versatility for troubleshooting and preventative maintenance
- Reliable and easy to use
- Ideal for work on motors, cables, and switchgear
- Large display with backlight
- Filter for motor drive measurements (1587 only)
- Insulation test (1587: 0.01MO to 2Gohm) , (1577: 0.1Mohm to 600Mohm)
- Insulation test voltages (1587: 50V, 100V, 250V, 500V, 1000V),(1577: 500V, 1000V) for many applications
- Live circuit detection prevents insulation test if voltage >30V is detected for added user protection
- Auto-discharge of capacitive voltage for added user protection
- AC/DC voltage, DC millivolts, AC/DC milliamps, Resistance (0.10-50Mohm), Continuity
- Capacitance, Diode Test, Temperature, Min/Max, Frequency (Hz) (1587 only)
- Auto power off to save battery power
- CAT III - 1000V, CAT IV - 600V measurement category
- Included accessories: Remote probe, test leads and probes, alligator clips, (K-type thermocouple - 1587 only)
- Accepts optional Fluke TPAK magnetic hanging system to free your hands for other work
- Included: Rugged, utility hard case
- Made in USA

Order Code	Product Code	1+	4+
WX38631	1587	1587 Meter	£539.48 POA
WX38630	1577	1577 Meter	£454.14 POA
WX38645	C25	Soft Case	£43.00 POA



Mobile Centre of Excellence

A custom-built mobile demonstration vehicle where you can get a hands-on experience, along with education and training from our technical product experts. Available on board:

- Product displays from key suppliers, alongside interactive videos and working demonstration rigs.
- The latest innovations in mechanical power transmissions, energy efficiency and hydraulic systems.
- Advice on cost saving initiatives.



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The latest addition to our fleet demonstrates a range of personal protective equipment (PPE), site safety and janitorial products, and delivers knowledge — including legislation compliance — from health and safety professionals. It brings you:

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- Innovative product solutions from leading PPE brands.
- Technical and application support from our experts.



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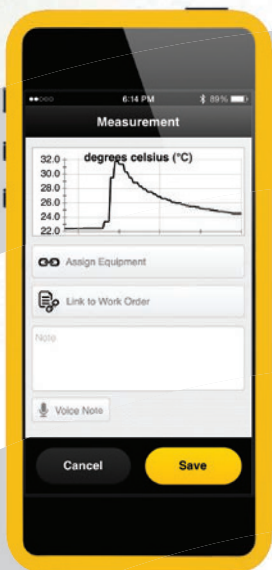
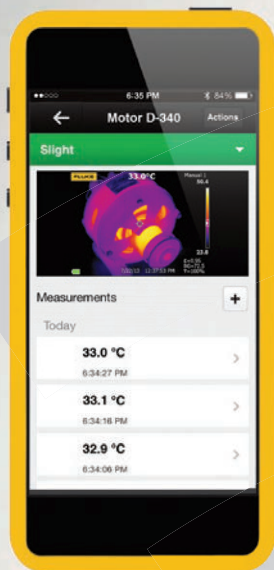
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Digital Multimeters

Fluke 3000FC Series Wireless Digital Multimeter



FLUKE

NEW

- The Fluke 3000 FC Series Wireless Multimeter with the Fluke Connect™ app has all the essentials for convenient test and measurement troubleshooting.
- AC and DC voltage measurements to 1000V (with Max resolution 0.1mV)
- AC and DC current to 400 mA (with Max resolution of 0.01 mA)
- Continuity, resistance, diode test measurements resistance measurement up to 50MΩ (with Max resolution of 0.1Ω)
- Capacitance measurements up to 9999μF (With Max resolution of 1nF)
- Frequency measurements up to 99.99kHz (with Max resolution of 0.01Hz)
- MIN/MAX Recording
- CAT III 1000 V, Cat IV 600 V; IP54
- Powered by 3xAA batteries
- RF 2.4Ghz ISM Brand, range 20m unobstructed (up to 3.5m Obstructed)
- Size 475 x 93 x 207mm
- Weight 340 grams
- 3 Year Warranty
- Additional Fluke Connect wireless enabled modules measure AC, DC and AC+DC voltage, AC and DC current, plus temperature, all of which display on the Fluke 3000 FC Series Wireless Multimeter. Choose a standard clamp or flexible clamp to measure AC current. Mix and match modules to suit your unique measurement needs. Read the primary measurement on the main display and up to three modules at any one time. Modules are available separately or as part of Fluke Connect kit

Price Each

Order Code	Product Code	1+	4+
WX63814	3000FC	£267.00	POA

Fluke 3000FC Series Wireless Modules



FLUKE

NEW

- Modules that wirelessly relay measurements to other Fluke Connect™ enabled master units such as: Fluke 3000 FC DMM, Fluke Ti200/300/400 Infrared Cameras, PC via optional PC3000 FC Adapter, Fluke Connect Mobile app or can be use as a standalone meter or as part of the system
- Logging function for recording and saving up to 65,000 readings
- Note: Not compatible with Fluke CNX test tools
- **A3000FC Wireless AC Current Clamp Module**
Fully functional true-RMS current clamp meter 0.5A to 400A AC (0.1A resolution)
Inrush function Max displayed reading: 999.9A
Accuracy 400A 2% ± 5 digits (10 to 100Hz), 2.5% ± 5 digits (100 to 500Hz)
Jaw opening 34mm, IP30
- **A3001FC Wireless Flexi Clamp AC Current Module**
The iFlex™ Wireless Current Module allows you to measure around awkward sized conductors or get into tight spaces and makes wire access easier.
True-rms flexible current meter and one iFlex i2500-10 Flexible Current Probe
0.5A to 2500A AC (0.1A resolution)
Accuracy 3% ± 5 digits (5 to 500Hz)
Inrush function
Magnetic hanging strap
Jaw opening 254mm (Coil), IP42
- **A3002FC Wireless AC/DC Current Module**
Designed to be used with the i410 or i1010 ac/dc current clamps (not included with module)
Measure up to 400 A ac or 400 A dc with i410 (sold separately)
Measure up to 600 A ac or 1000 A dc with i1010 (sold separately)
1000A DC (0.1A resolution) Accuracy 0.5% ± 3 digits, 600A AC (0.1A resolution) Accuracy 0.1% ± 3 digits (45 to 1000Hz)
Magnetic hanging strap, IP42
- **V3000FC Wireless AC Voltage Module**
True-rms ac voltage module
Measure up to 1000V AC (Max resolution 0.1mV)
Accuracy 0.09% ± 3 digits (600mV to 600V), 0.15% ± 2 digits (1000V)
Complete with TL224 Test Leads, AC285 Alligator Clips
Magnetic hanging strap, IP42
- **V3001FC Wireless DC Voltage Module**
Measure up to 1000V DC (Max resolution 0.001V)
Accuracy 1% ± 3 digits (45 to 500Hz), 2.0% ± 3 digits (500 to 1000Hz)
Complete with TL224 Test Leads, AC285 Alligator Clips
Magnetic hanging strap, IP42
- **T3000FC Wireless K-Type Temperature Module**
80PK-1 K-type Bead Thermocouple -200°C to 1372°C (0.1°C Resolution) Accuracy ± 0.5% +0.3°C
Magnetic hanging strap, IP42
Other K-type temperature probes also available

PC3000 Wireless PC Adaptor and Software

Show real-time measurements from remote modules up to 20 meters away on your PC
The PC3000 FC Adapter and Software help you understand the information you measure.
When you need to get information back to a PC the PC3000 FC Adapter and Software wirelessly collects up to 65,000 sets of time stamped min/max/avg readings from FC remote modules

Price Each

Order Code	Product Code	Module	1+	4+
WX63815	A3000FC	AC Current Clamp	£112.00	POA
WX63816	A3001FC	Flexi AC Current Clamp	£133.00	POA
WX63817	A3002FC	AC/DC Current	£86.00	POA
WX63818	V3000FC	AC Voltage	£112.00	POA
WX63819	V3001FC	DC Voltage	£112.00	POA
WX63820	T3000FC	K-Type Temperature	£267.00	POA
WX63821	PC3000	PC Adaptor & Software	£40.00	POA

Fluke 3000FC Series Wireless Kits



FLUKE

NEW

- 3000 FC Industrial Kit includes multimeter, three iFlex clamp modules, one ac voltage module and accessories
AC and DC voltage measurements to 1000V
AC and DC current with 0.01 mA resolution
Continuity, resistance, diode test, capacitance and frequency measurements
MIN/MAX recording
CAT III 1000 V, Cat IV 600 V;
A logging function for recording and saving up to 65,000 readings
- Kit Supplied with:
Fluke 3000 FC Series Wireless Multimeter
Fluke A3001 FC Wireless iFlex AC Current Module (x3)
Fluke V3000 Voltage Module
TL224 Test Leads
TL175 Test Leads
AC285 Alligator Clips
AC175 Alligator Clips
iFlex i2500-10 Flexible Current Probe (x3)
Magnetic hanging strap

Price Each

Order Code	Product Code	1+	4+
WX63822	3000FCIND	£761.00	POA

Fluke 233 Remote Display Digital Multimeter



- The first Fluke digital multimeter with a detachable display is here
- The 233 wireless remote DMM allows maintenance professionals to address an age-old problem - display positioning
- The new Fluke 233 can be used for even the most common meter measurements and is especially suited for those situations where display viewing is challenging
- Removable magnetic display
- No need to hold the meter to read measurement values
- Improved visual focus on probes
- Use as a conventional multimeter when the display is connected
- Auto power off, radio is turned off when the display is connected to the meter
- True-rms ac voltage and current for accurate measurements on non-linear signals
- Large digit display with bright backlight
- Displays may be interchanged between 233 meters
- Counts 6000
 - Voltage: 1000 V AC/DC
 - Current: 10 A AC/DC
 - Resistance: 40 MΩ
 - Continuity / Diode
 - Capacitance: 10,000 μF
 - Frequency 500kHz
 - Min/Max/Avg Hold, Auto and Manual Range
 - Temp -40 °C to +400 °C (Display °C or °F)
 - Wireless Range 30 ft
 - Safety Rating CAT III 1000 V CAT IV 600 V
 - Warranty 3 Years
 - Size (H x W x L) cm 5.3 x 9.3 x 19.3
 - Weight 604 g
- Fluke 233 Remote Display Multimeter Includes:
 - Getting Started Manual (Printed)
 - AA Batteries, installed
 - Test leads
 - AC72 Alligator clips
 - 80BK-A Temperature Probe
 - CD-ROM (user manual & technical notes and application images)

Price Each

Order Code	Product Code	1+	4+
WX45621	233	£253.00	POA

27 II & 28 II Multimeters - Waterproof & Rustproof!



FLUKE

- Waterproof & dustproof IP67 digital multimeters are designed for the toughest environments and users. These two new meters:
- Are made for customers who need a heavy duty, water and dust resistant digital multimeter
- Bring the old Fluke 27 up-to-date with a modern look, feel and feature set to match
- Have an improved feature set that extends the appeal of Fluke 27 by attracting industrial customers who work in harsh environments
- Address the needs of customers who prefer True-rms (Fluke 28 II) in a rugged DMM
- Have an extended operating temperature range -40° C to +55°C (5°F to 131°F) and 95% humidity for 20 minutes
- Are engineered and tested to withstand a 3 m (10.0 ft) drop with holster

Specification	27 II	28 II
DC voltage	Max. resolution 0.1 mV to 1000 V	0.1 mV to 1000 V
	Accuracy 0.1 % +1	0.05 % +1
AC voltage	Max. resolution 0.1 mV to 1000 V	0.1 mV to 1000 V
	Accuracy 0.5 % +3	0.7 % +4
DC current	Max. resolution 0.1 μA to 10 A	0.1 μA to 10 A
	Accuracy 0.2 % +4	0.2 % +4
AC current	Max. resolution 0.1 μA to 10 A	0.1 μA to 10 A
	Accuracy 1.5 % +2	1.0 % +2
Resistance	Max. resolution 0.1 to 50 ΩM	0.1 to 50 ΩM
	Display counts 6000	6000/19,999
Capacitance	1 nF to 9999 μF	1 nF to 9999 μF
	Frequency 0.5Hz Hz to 199.99 kHz	0.5Hz Hz to 199.99 kHz
Temperature	—	-200 °C to +1090 °C
	Low pass filter (Measurement on VSD's)	—
Compliance	CAT IV 600V, CAT III 1000V	CAT IV 600V, CAT III 1000V
	IP rating IP 67	IP 67
Power	3 x AA Batteries	3 x AA Batteries
	Battery life 800 hours	800 hours

Price Each

Order Code	Product Code	1+	4+
WX45622	27II	£383.00	POA
WX45623	28II	£407.00	POA

Fluke 170 Series Multimeters



FLUKE

- The three models of the Fluke 170 Series are the new benchmark for general purpose multimeters, combining accuracy, includes ease-of-use, safety and reliability in a tough package
- Certified for use in all areas of the workplace including the most demanding category 4 (Cat IV)
- The new 170-series have the following features:
 - True RMS voltage and current measurements
 - 0.09% basic accuracy (177, 179)
 - 6000 count resolution
 - Digital display with analogue bar graph
 - Display backlight (177, 179)
 - Manual and automatic ranging
 - Display Hold and Auto Hold (automatic 'hands free' storage)
 - Frequency and capacitance measurements
 - Resistance, continuity and diode measurements
 - Temperature measurement probe included (179)
 - Min-max-average recording
 - Smoothing mode for stable measurement of noisy signals
 - Easy battery exchange without opening the case
 - Closed case calibration through front panel
 - Ergonomic case with integrated protective holster
 - EN61010-1 CAT III 1000V / CAT IV 600V
 - Lifetime warranty

Function	Max	Max Resolution
Voltage DC	1000V	0.1mV
Voltage	1000V	0.1mV
Current DC	10A	0.01mA
Current AC	10A	0.01mA
Resistance	50M Ohm	0.1 ohm
Capacitance	10,000μF	1nF
Frequency	100KHz	0.01Hz
Temperature	-40/400.C	0.1.C

Price Each

Order Code	Product Code	1+	4+
WX30975	175	£193.00	POA
WX30976	177	£215.00	POA
WX30977	179	£238.00	POA

FLUKE-C90



FLUKE

- Soft meter case from Fluke
- Zippered carrying case with inside pocket and belt loop
- Suitable for the following Fluke meters; 170 series, 80 series, 70 series, 27, 712, 714, 715, 717, 724, 725, 787, 789 meters and 50 series meters

Price Each

Order Code	Product Code	1+	4+
WX37146	C90	£29.00	POA

Flir DM93 Multimeter



NEW

- DM93 is a world-class digital multimeter with advanced VFD filtering to help you accurately analyze non-traditional sine waves and noisy signals found in VFD-controlled equipment.
- VFD Mode filters variable frequency drive signals and provides accurate voltage and frequency measurements during maintenance and troubleshooting
- LoZ Mode eliminates ghost voltage readings associated with long-run applications
- Rugged - 3m drop tested and IP67 ensures your meter will last
- Limited Lifetime Warranty - 10 years + warranty restarts for 10yrs if FLIR ends production in this period.
- Powerful Worklights eliminate the need for a flashlight while performing tests in dim lighting
- Data Record feature captures electrical measurements and provides wireless data transfer
- Integrated Bluetooth technology* connects the FLIR DM93 to the FLIR Tools Mobile app on your compatible mobile device
- METERLINK® technology wirelessly integrates electrical readings on your infrared image with METERLINK-enabled FLIR Thermal Cameras
- Features: Voltage and Current, Bright White LED Backlight, Analog Bargraph, Auto AC/DC Voltage, Min, Max, Average Recording, Auto Power Off, Hold, Relative, Peak Hold, Store, Recall
- Category Rating: CAT IV-600V, CAT III-1000
- Data Recording: 20,000 Pts (125 days max)
- DC, AC and VFD Voltages: 1000.0V (±0.05%, ±0.5% and ±0.5%, respectively)
- DC Current: 10,000A (±0.2%)
- AC Current: 10,000A (±1.0%)
- Resistance: 40.0MΩ (±0.2%)
- Continuity Threshold: 30Ω (±0.2%)
- Frequency: 100.00kHz (±5 Digits)
- Capacitance: 40.00mF (±0.9%)
- Temperature: -200 to 1200°C (±1.0%)
- Diode Test: 2V (±1.5%)
- Supplied with: 6xAAA Batteries, User Manual/CD, CAT IV Silicon Test Leads, Type K Temperature Probe (400°F, 204°C), Magnetic Hanging Strap and Limited Lifetime Warranty

Price Each

Order Code	Product Code	Description	1+
WX63823 ‡	DM93	Digital Multimeter	£279.00

EXTECH EX530



- Waterproof (IP67) and Drop-proof (6ft)
- Dual sensitivity frequency functions
- True RMS
- 0.06% basic accuracy
- CAT IV-600V
- 40,000 count display
- 20A current range

Function

Display count	40000
Basic DCV accuracy	0.06%
AC/DC Current	20A
AC/DC Voltage	1000V
DC Voltage	600V
Resistance	40MΩ
Frequency	400Hz/100MHz
Capacitance	40mF
Temperature	-50 to 1382°F
Duty Cycle	0.1 to 99.9%

Price Each

Order Code	Product Code	1+	4+
WX43942	EX530	£159.16	POA

Fluke 110 Series Multimeters



FLUKE

- The 110 range of multimeters pack more features than many other meters twice the size
- The 110-series have the following feature set:
 - True RMS measurements
 - 0.7% basic accuracy
 - 6000 count resolution
 - Digital display with analog bargraph
 - AC/DC current measurements (114, 117)
 - Backlight display (117)
 - Manual and automatic ranging
 - Display Hold
 - Frequency and capacitance measurements
 - Min-max-average recording
 - Resistance, continuity and diode measurements
 - Easy battery change without opening the case
 - Closed case calibration through front panel

Compact case with separate holster
EN61010-1 CAT III 600V
Three year warranty
Image shown is the Fluke 117 model

Function	Max	Max Resolution	Accuracy
Voltage DC	600V	1mV	+ (0.7%+2)
Voltage AC	600V	1mV	+ (1.0%+3)
Current DC	10A	1mA	+ (1.0%+3) (111/112)
Current AC	10A	10mA	+ (1.5%+3) (111/112)
Resistance	40M Ohm	0.1 Ohm	+ (0.9%+1)
Capacitance	10,000µF	1nF	+ (1.9%+2)
Frequency	50KHz	0.01Hz	+ (0.1%+2)

Price Each

Order Code	Product Code	1+	4+
WX30969	114	£128.00	POA
WX30970	115	£151.00	POA
WX30971	117	£180.00	POA

AVO 300 Series Multimeter



Megger

- The AVO300 range of Megger digital multi-meters are tough compact instruments designed for the contracting electrician, but are also suitable for a wide range of applications and users
- Both instruments offer a range of measurement modes for AC and DC applications, resistance and current measurement
- Designed for Electricians
- Fully auto ranging
- Large display characters
- Separate battery and fuse cover
- Data hold
- Min/Max store
- IEC 61010 compliant
- Suitable for applications to CATIII 600 V
- Three ranges are provided for current measurement of either AC or DC current from 0.1uA to 10A; fused inputs protect both the user and the instrument in the case of excess current
- Resistance can be measured directly on the ohms range from 0ohms up to 1.999Mohms
- A continuity buzzer range is also available for checking low resistance between two points
- The buzzer sounding if the resistance is less than 50ohms (35ohms on the AVO310)
- Additionally a diode range exists for testing forward and reverse bias operation of transistors and diodes
- A low battery indicator warns when batteries are low, and an auto-off function ensures no unnecessary battery wastage occurs if accidentally left on
- Display:
 - AVO300: 4000 counts LCD display, 25.4mm high
 - AVO310: 4000 counts LCD display, 20mm high
- Backlight on AVO310 only
- The Max/Min function on the AVO310 freezes the maximum or minimum measured result on the screen so display does not have to be continually watched to capture a momentary increase or fall in circuit voltage, resistance or current

Price Each

Order Code	Product Code	1+	4+
WX53601	AVO300	£86.37	POA
WX53602	AVO310	£96.53	POA

C50 MultiMeter Case**FLUKE**

- Soft meter case from Fluke
- Zippered carrying case with inside pocket belt loop and inside meter strap
- Dimensions: (H x W x D) 192 x 90 x 38 mm
- Suitable for the following Fluke meters; 110 series, 70 series, 27 meter and 50 series

Price Each

Order Code	Product Code	1+	4+
WX36035	C50	£29.00	POA

MM34 General Purpose Multimeter**MARTINDALE**

- The Martindale MM34 is a general purpose multimeter, suitable for a range of standard applications
- It has four main functions, AC Volts, DC Volts, DC Amps and Ohms, along with a diode test and battery test
- Readings are clearly displayed on the large 3 1/2 digit LCD display and it's ergonomic design makes it comfortable to hold and the rotary dial makes selection of the required range simple
- The MM34 is supplied with standard test leads, battery and instruction manual
- AC Voltage: 100mV to 600V (2 ranges), 50Hz - 500Hz
- DC Voltage: 1mV to 600V (4 ranges)
- DC Current: 0.1µA - 10A (5 ranges)
- Resistance: 0.1Ω to 20MΩ (5 ranges)
- Battery Test: 1.5V & 9V
- Diode test
- Overvoltage: CAT III 600V
- Dimensions: 143 x 68 x 47mm
- Weight: 206g approx

Price Each

Order Code	Product Code	1+	3+
WX60907	MM34	£33.00	POA

Martindale MM39 Digital Multimeter**MARTINDALE**

- The Martindale MM39 multimeter is autoranging and features a large rotary knob for easy selection of the required test, even when wearing gloves
- There are two additional buttons, one to lock the range and the other to hold the result on the display
- The multimeter functions include DC Volts, AC Volts, AC Amps, Ohms, Continuity with Audible Indication and Diode Test.
- Each MM39 multimeter is supplied with standard test leads, batteries, protective rubber holster and instruction manual.
- AC Voltage: 0.1mV to 600V (5 ranges), 50Hz - 500Hz
- DC Voltage: 0.1mV to 600V (5 ranges)
- AC Current: 0.01A to 10A, 50Hz to 500Hz
- DC Current: 0.01A - 10A
- Resistance: 0.1Ω to 20MΩ (6 ranges)
- Continuity Buzz at <25Ω
- 3 1/2 digit LCD display
- Auto polarity & zero
- Data hold
- Diode test
- Overvoltage: CAT III 600V
- Dimensions: 143 x 68 x 47mm
- Weight: 315g approx

Price Each

Order Code	Product Code	1+	3+
WX60908	MM39	£36.00	POA

Martindale MM64 Digital Multimeter**MARTINDALE****NEW**

- The MM64 is a digital multimeter which performs all the basic test functions with the benefit of temperature measurement from -35°C to 750°C
- It measures AC and DC voltages from 0.1mV to 600V and AC and DC currents from 0.1µA to 200mA
- Resistance measurements up to 20MΩ, frequency measurements up to 40 kHz and capacitance from 0.01µF to 20mF
- DC Volts 0.1mV - 600V
- AC Volts 0.1mV - 600V
- Resistance 0.1Ω - 20MΩ
- AC Current 0.1µA - 200mA
- DC Current 0.1µA - 200mA
- Frequency 1Hz - 40kHz
- Capacitance 0.1µF to 20mF
- Temperature -35°C to 750°C
- Continuity Test Audible Indication at less than 100Ω
- Diode Test
- Compliance BS EN 61010-1, CAT III 600V, Class II Double Insulation
- Pollution Degree 2 for indoor use

- Power Single standard 9V battery, NEDA 1604, JIS006P, IEC 6F22
- Dimensions 165 x 78 x 42.5mm
- Weight 285g approx
- Supplied With TL16 test leads, K-Type thermocouple, 1 x spare fuse, 9V battery & manual

Price Each

Order Code	Product Code	1+	3+
WX60909	MM64	£65.00	POA

EXTECH EX470**EXTECH**

- Built-in IR Thermometer with laser pointer
- True RMS
- Capacitance, Frequency and temperature
- 0.3% basic accuracy
- 1000VDC/750AC Voltage ranges
- 20A AC/DC Current ranges

Function

Display count	4000
IEC 1010 CAT	III
Basic DCV accuracy	0.03%
AC/DC Current	20A
AC/DC Voltage	1000VDC/750AC
Resistance	40MΩ
Frequency	10MHz
Capacitance	100µF
Type K Temperature	-4 to 1382°F
Infrared Temperature	-58 to 518°F
Duty Cycle	0.1 to 99.9%

Price Each

Order Code	Product Code	1+	4+
WX43943	EX470	£113.14	POA

EXTECH EX205T TRMS Autoranging Multimeter**EXTECH**

- True RMS for better accuracy when measuring distorted waveforms
- 2000 count large backlit dual LCD with easy-to-read digits
- Low current capability with resolution to 0.1µA
- Input fuse protection
- Max Hold, Data Hold and Auto power off
- Complete with test leads and 9V battery

Specifications	Range	Max Resolution
AC Voltage	600V	0.1mV
DC Voltage	600V	0.1mV
Basic Accuracy	(VDC) $\pm 0.5\%$	
AC Current	10A	0.1 μ A
DC Current	10A	0.1 μ A
Resistance	20M Ω	0.1 Ω
IR Temperature (EX210T only)	-5 to 446°F / -20 to 230°C	0.1°
Continuity / Diode	Yes	
Dimensions	5.8x2.9x1.6" (147x76x42mm)	
Weight	9.17oz (260g)	

Price Each

Order Code	Product Code	1+	4+
WX60910	EX205T	£55.17	POA

Amprobe 15XP Digital Multimeter



- Auto-ranging / Manual range hold
- 2000 Count, 3½ digits, 0.5% basic accuracy
- 750 Vac / 1000 Vdc
- AC / DC, resistance
- Built-in non-contact voltage detector (audible and visual indicators)
- Continuity, Diode test, Data Hold
- TTL logic test
- Auto Power Off
- Overload protection / Input warning
- CAT I 1000V, II 600V, CAT III 300V rated
- Included with Instrument: test leads, 9V battery (installed), Magne-Grip TM holster, magnet hanging strap and operating instructions

Price Each

Order Code	Product Code	1+	4+
WX38657	15XP-A	£58.00	POA

Amprobe 5XP Digital Multimeter



- The 5XP-A Digital Multimeter provides superior features and accuracy in a smaller form factor
- The 5XP has unique features such as VoltTest non-contact voltage (NCV) detection and our exclusive Magne-Grip holster that frees both hands for work
- 10 functions/ 27 ranges
- 2000 Count, 3½ digits, 1% basic accuracy
- 750 Vac / 1000 Vdc
- AC / DC, resistance

- Built-in non-contact voltage detector (audible and visual indicators)
- Continuity, Diode test, Data Hold
- Min-Max recording, Data Hold
- Battery test
- Overload protection / Input warning
- CAT I 1000V, II 600V, CAT III 300V rated
- Included with Instrument: test leads, 9V battery (installed), Magne-Grip TM holster with magnet hanging strap and operating instructions

Price Each

Order Code	Product Code	1+	4+
WX38658	5XP-A	£37.00	POA

DM73B Digital Test Probe Meter



- Meter with built-in test probe for one-hand operation
- Unique pen shape auto-ranger
- Small and light, goes anywhere
- Allows one-hand operation in tight spots
- 3400-count display with analog bargraph
- Current: 600 V AC/DC
- Data Hold and Auto-Off
- Voltage: 600V AC/DC
- Continuity beeper
- Diode test

Price Each

Order Code	Product Code	1+	4+
WX32040	DM73B	£55.00	POA

CB12 Calibration Check Box



- The CB12 calibration checkbox is designed to check the calibration of the continuity and resistance ranges of insulation testers & multimeters, providing a quick check to ensure the instrument being used is giving an accurate reading
- By checking an instrument regularly the user can verify that measurements taken are accurate, within the tolerances of the instrument and the check box
- It is not designed to check loop testers, where the high test current will damage the CB12
- The Calibration Check Box is simple to use, simply connect the instrument under test to the checkbox via the 4mm terminals on the front of the checkbox
- Select a resistance value via the dial on the front of the checkbox. Set the instrument under test to the relevant test range and either check the values or run an insulation test to check the values are within the appropriate limits.

Resistance Settings:

0.5 Ω , 1 Ω , 2 Ω , 20 Ω , 200 Ω , 1k Ω , 10k Ω , 20k Ω , 100k Ω , 1M Ω , 2M Ω , 10M Ω

Accuracy:

0.5 Ω - 2 Ω $\pm 0.025\Omega$ 20 Ω - 10M Ω $\pm 2\%$

Maximum Voltage Input: 1000V DC

Case: Impact Resistant ABS

Price Each

Order Code	Product Code	1+	3+
WX60911	CB12	£49.50	POA

TL220 SureGrip Industrial Test Lead Kit



- Test Lead Kit in an all-in-one handy kit that includes the following:
- AC220 SureGrip alligator clip set
- TP220 SureGrip test probe set
- TL222 SureGrip silicone test lead set (right to right)

Price Each

Order Code	Product Code	1+	4+
WX36040	TL220-1	£56.00	POA

TL76 All-In-One Test Lead Set



- One pair (red, black) 1.5 metre long silicone test leads with right angle shrouded banana plug
- Lantern tip (removable) for use with European wall sockets (4mm $\varnothing$)
- Lantern tip can be removed for easy access to terminal blocks (2mm $\varnothing$)
- Removable, insulated IC caps allow probing on closely spaced leads and compliance with GS38
- Cat IV 600 V, CAT III 1000 V, 10 A rating, UL listed

Price Each

Order Code	Product Code	1+	4+
WX36041	TL76	£30.00	POA

L215 SureGrip Kit with Probe Light & Extender



- L200 Probe Light
- TP280 20cm Test Probe Extenders
- TP220 SureGrip Test Probes
- TL224 SureGrip Silicon Test Lead Set
- Foldable soft pouch with six pockets and hook-and-loop

Price Each

Order Code	Product Code	1+	4+
WX36036	L215	£65.00	POA


MARTINDALE
ELECTRIC

- Red & black unfused test leads with lantern tips & probe caps supplied with crocodile clips and shrouded tip, terminated with 4mm banana plug
- Double insulated PVC lead
- Suitable for general purpose use.

Price Each

Order Code	Product Code		1+	3+
WX60913	TL45	Right Angle Fixed Shroud	£22.46	POA
WX60914	TL47	Straight Fixed Shroud	£22.46	POA

Clamp Meters

374 and 375 True-RMS AC/DC Clamp Meters


FLUKE

- Work horse clamps with increased performance and flexibility
- The new Fluke 374 and 375 clamp meters offer improved performance perfect for many current measurement situations
- With True-RMS ac voltage and current measurements, the Fluke 374 and 375 can read up to 600 V and 600 A in both ac and dc modes
- Additionally, both are compatible with the new iFlex™ flexible current probe (sold separately) which expands the measurement range to 2500 A ac and provides increased display flexibility, ability to measure around awkward sized conductors and improved wire access
- iFlex™ flexible current probe expands the measurement range to 2500 A ac while providing increased display flexibility, ability to measure awkward sized conductors and improved wire access
- CAT IV 600V, CAT III 1000 V safety rating
- Integrated low pass filter (Fluke 375 only) and state of the art signal processing allows for use in noisy electrical environments while providing stable readings
- Proprietary inrush measurement technology to filter out noise and capture motor starting current exactly as the circuit protection sees it
- Ergonomic design fits in your hand and can be used while wearing personal protective equipment
- Large, easy to read, backlight display automatically sets the correct measurement range so you do not need to change switch positions while taking a measurement
- Three-year warranty
- Soft carrying case
- Other joint features for both 374 and 375 include: True-RMS, Continuity, Hold, Backlight, Min/Max, Inrush
- Low pass filter only with Fluke 375
- 45 cm (18 inch) iFlex™ and 25 cm (10 inch) iFlex™ flexible current probes as optional accessory
- 34mm Wire capacity

Fluke 374 and 375	Range	Max Resolution	Accuracy
AC current via jaw	600 A	0.1 A	2 % ± 5 digits
AC current via iFlex™ (optional)	2500 A	0.1 A	3 % ± 5 digits
DC current	600 A	0.1 A	2 % ± 5 digits
AC voltage	600 V	0.1 V	1.5 % ± 5 digits
DC voltage	600 V	0.1 mV (375) 0.1 V (374)	1 % ± 5 digits
Resistance	60,000 Ω (375) 6000 Ω (374)	0.1 Ω	1 % ± 5 digits
Frequency (375 only)	500 Hz	0.1 Hz	0.5 % ± 5 digits
Capacitance	1 µF to 1000 µF	1 µF	1 % ± 4 digits

Price Each

Order Code	Product Code		1+	4+
WX53589	374	374 True-RMS AC/DC	£274.93	POA
WX53590	375	375 True-RMS AC/DC	£317.00	POA
WX53591	i2500-10	i2500-10 iFlex Current Probe 25 cm	£91.00	POA
WX53592	i2500-18	i2500-18 iFlex Current Probe 45 cm	£91.00	POA

376 True-RMS AC/DC Clamp Meter with iFlex™


FLUKE

- The new Fluke 376 Clamp Meter offers improved performance perfect for a wide range of current measurement situations
- With True-RMS ac voltage and current measurements, the Fluke 376 can read up to 1000 V and 1000 A in both ac and dc modes
- Additionally, the Fluke 376 includes the new iFlex™ flexible current probe expanding the measurement range to 2500 A ac while providing increased display flexibility, ability to measure around awkward sized conductors and improved wire access
- The Fluke 376 is the direct replacement for the Fluke 337 Clamp Meter
- CAT IV 600 V, CAT III 1000 V safety rating
- Integrated low pass filter and state of the art signal processing allows for use in noisy electrical environments while providing stable readings
- Proprietary inrush measurement technology to filter out noise and capture motor starting current exactly as the circuit protection sees it
- Ergonomic design fits in your hand and can be used while wearing personal protective equipment
- Large, easy to read, backlight display automatically sets the correct measurement range so you do not need to change switch positions while taking a measurement
- Three-year warranty
- Soft carrying case
- Other features include: Continuity, Hold, Backlight, Min/Max/Avg, Inrush, Low pass filter, 45 cm (18 inch) iFlex Flexible™ included, Current Probe, Wire capacity 34mm

Fluke 376	Range	Resolution	Accuracy
AC current via jaw	999.9 A	0.1 A	2 % ± 5 digits
AC current via iFlex™	2500 A	0.1 A	3 % ± 5 digits
DC current	999.9 A	0.1 A	2 % ± 5 digits
AC voltage	1000 V	0.1 V	1.5 % ± 5 digits
DC voltage	1000 V	0.1 mV	1 % ± 5 digits
Resistance	60,000 Ω	0.1 Ω	1 % ± 5 digits
Frequency	500 Hz	0.1 Hz	0.5 % ± 5 digits
Capacitance	1000 µF	1 µF	1 % ± 4 digits

Price Each

Order Code	Product Code		1+	4+
WX53593	FLUKE-376	376	£392.61	POA
WX53591	FLUKE-i2500-10	i2500-10 iFlex Current Probe 25 cm	£91.00	POA

381 Remote Display True-RMSAC/DC Clamp Meter



FLUKE

- The first clamp meter with a detachable, remote display for easier, faster, safer measurements
- Wireless technology allows the display to be carried up to 10 m away from the point of measurement for added flexibility without interference with measurement accuracy
- iFlex™ flexible current probe expands the measurement range to 2500 A ac while providing increased display flexibility, ability to measure awkward sized conductors and improved wire access
- CAT IV 600V, CAT III 1000 V safety rating
- Integrated low pass filter and state of the art signal processing allows for use in noisy electrical environments while providing stable readings
- Proprietary inrush measurement technology to filter out noise and capture motor starting current exactly as the circuit protection sees it
- Ergonomic design fits in your hand and can be used while wearing personal protective equipment
- The removable magnetic display can be conveniently mounted where it is easily seen
- Radio transmitter automatically turns off when the display is connected to the meter
- Large, easy to read, backlight display automatically sets the correct measurement range so you do not need to change switch positions while taking a measurement
- Three-year warranty
- Soft carrying case
- Other features include:
 - True-RMS
 - Continuity
 - Hold
 - Backlight
 - Min/Max
 - Inrush
 - Low pass filter
 - Removable wireless display
- 45 cm (18 inch) iFlex™ Flexible Current Probe included
- 25 cm (10 inch) iFlex™ Flexible Current Probe as accessory if required
- Wire capacity is 34mm

Fluke 381	Range	Resolution	Accuracy
AC current via jaw	999.9 A	0.1 A	2 % ± 5 digits
AC current via iFlex™	2500 A	0.1 A	3 % ± 5 digits
DC current	999.9 A	0.1 A	2 % ± 5 digits
AC voltage	1000 V	0.1 V	1.5 % ± 5 digits
DC voltage	1000 V	0.1 V	1 % ± 5 digits
Resistance	60,000 Ω	0.1 Ω	1 % ± 5 digits
Frequency	500 Hz	0.1 Hz	0.5 % ± 5 digits

Price Each

Order Code	Product Code	1+	4+
WX53594	381	£444.00	POA

Flir CM83 600A Clamp Meter



NEW

- The FLIR CM83 True RMS Power Clamp is an industrial-grade Power Clamp Meter engineered with advanced power analysis and VFD filtering functions required by electrical troubleshooters.
- VFD Mode provides superior accuracy for working on VFD-controlled equipment
- Advanced power efficiency and harmonics measurements for system level performance analysis
- Powerful Worklights not only assist with clamping but are bright enough to serve as a primary worklight
- Rugged - 3m drop tested and IP67 ensures your meter will last
- Limited Lifetime Warranty - 10 yrs + warranty restarts for 10yrs if FLIR ends production in this period.
- Integrated Bluetooth technology* connects the FLIR CM83 to the FLIR Tools Mobile app on your compatible mobile device
- METERLINK® technology wirelessly integrates electrical readings on your infrared image with METERLINK-enabled FLIR Thermal Cameras
- Features: Voltage and Current, Bright White LED Backlight, Analog Bargraph, Power Factor, Phase Rotation, Integrated Non Contact Voltage Detector, Min, Max, Average, Auto Power Off, Data Hold, Relative, Peak Hold, DCA Zero, Battery Status
- Category Rating: CAT IV-600V, CAT III-1000V
- Jaw Opening: 37mm, 1000MCM
- DC/AC Current: 600A (±2.5%)
- AC/DC Voltage: 1000V (±1/0.7%)
- Harmonics: 1st-25th Order (±5%)
- Total Harmonic Distortion: 0.0 to 99.9% (±3%)
- Inrush Current: 600ACA (±3%)
- Active Power: 10kW to 600kW (10V, 5A min) (±3%)
- Diode Test: 0.4 to 0.8V (±0.1V)
- Resistance: 40.00MΩ (±1.5%)
- Frequency: 20.00Hz to 9.999kHz (±0.5%)
- Capacitance: 3.999mF Max (±1.9%)
- Continuity Threshold: 30Ω (±1%)
- Includes: 6 AAA Batteries, User Manual/CD, CAT IV Silicon Test Leads and Limited Lifetime Warranty

Price Each

Order Code	Product Code	Description	1+
WX63824	CM83	600A Clampmeter	£279.00

Flir CM78 1000A Clamp Meter



NEW

- The FLIR CM78 is a True RMS Industrial Grade 1000A Clamp Meter for the electrician who needs a safe, capable combination tool.
- Integrated IR Thermometer provides fast non-contact measurements on panels, conduits, and motors
- Powerful Worklights not only assist with clamping but are bright enough to serve as a primary worklight
- Rugged - 3m drop tested and IP67 ensures your meter will last

- Limited Lifetime Warranty - 10 years + warranty restarts for 10yrs if FLIR ends production in this period.
- Integrated Bluetooth technology* connects the FLIR CM78 to the FLIR Tools Mobile app on your compatible mobile device
- METERLINK® technology wirelessly integrates electrical readings on your infrared image with METERLINK-enabled FLIR Thermal Cameras
- Features: Voltage and Current, Min, Max, Average, Auto Power Off, Data Hold, Relative, Peak Hold, Battery Status Indicator, Bright White LED Backlight
- Category Rating: CAT IV-600V, CAT III-1000V
- Jaw Opening: 42mm, 1500MCM
- DC/AC Current: 1000A (±2.5%)
- AC/DC Voltage: 1000V (±1.5%)
- Resistance: 40.00MΩ (±1.5%)
- Frequency: 4000Hz (±1.5%)
- Capacitance: 4000mF (±3%)
- Temperature: -20 to 270°C (±2%)
- IR Distance to Target Ratio: 8:1
- Type K Temperature (optional probe): -20 to 760°C (±3%)
- Includes: 6 AAA Batteries, User Manual/CD, CAT IV Silicon Test Leads and Limited Lifetime Warranty

Price Each

Order Code	Product Code	Description	1+
WX63825	CM78	1000A Clampmeter	£319.00

Fork Clamp/Multimeter



Megger

- The Megger DCM330 Fork Multimeter is a convenient, compact instrument designed to measure ac current up to 200 A, and additionally perform all the functions of a basic multimeter
- 200.0 A a.c. open-jaw current measurement
- 0.1 V to 1000 V auto-ranging a.c. and d.c. voltage measurement
- 0.1 Ω to 20.00 MΩ resistance range
- Continuity buzzer
- Diode check
- Non-contact detection of a.c. voltage

Price Each

Order Code	Product Code	1+	4+
WX53603	DCM330	£106.69	POA

Martindale ET4 Electrical Tester



33

Test & Measurement

MARTINDALE
ELECTRIC

NEW

- A compact electrical tester that measures voltage, resistance and current
- It will also measure frequency, continuity and will take simultaneous measurement of current/voltage and frequency/voltage
- This electrical tester can be used as a non-contact voltage indicator and has auto ranging, display hold and auto power off functions
- One of the forks has a forward facing LED light to illuminate the area in the front.
- AC / DC Current: 0.1A to 200A
- AC / DC Voltage: 0.1mV to 600V
- Resistance: 0.1Ω to 50MΩ
- Frequency: 30Hz to 400Hz
- Continuity: 0.1Ω to 500Ω, buzz at <30Ω
- Diode Test: 1mV - 2V
- Non-Contact Voltage Indicator: 70V - 600V
- Power: 9V PP3 Alkaline (Included)
- Dimensions: 202 x 51 x 44mm
- Weight: 200g (incl. battery)
- The ET4 is supplied with TL17 test leads, a soft carry case, 9V battery and manual

Price Each

Order Code	Product Code	1+	3+
WX63826	ET4	£89.00	POA

Martindale ET5 Electrical Tester



MARTINDALE
ELECTRIC

NEW

- This compact electrical tester measures voltage, resistance and current
- It will also measure frequency, continuity and will take simultaneous measurement of current/voltage and frequency/voltage
- This electrical tester can be used as a non-contact voltage indicator and has auto ranging, display hold and auto power off functions
- The ET5 benefits from the additional features of capacitance, temperature and duty cycle
- A K-type thermocouple is included which allows temperature measurements of -35°C to 500°C
- A powerful LED torch is included in one of the forks
- AC / DC Current: 0.1A to 200A
- AC / DC Voltage: 0.1mV to 600V
- Resistance: 0.1Ω to 50MΩ
- Frequency: 30Hz to 400Hz
- Continuity: 0.1Ω to 500Ω, buzz at <30Ω
- Diode Test: 1mV - 2V
- Non-Contact Voltage Indicator: 70V - 600V
- Temperature Measurement: -35°C to +500°C
- Duty Cycle
- Capacitance
- Power: 9V PP3 Alkaline (Included)
- Dimensions: 202 x 51 x 44mm
- Weight: 200g (incl. battery)
- The ET5 is supplied with TL17 test leads, a soft carry case, 9V battery and manual

Price Each

Order Code	Product Code	1+	3+
WX63827	ET5	£109.00	POA

Fluke Clamp Meter



FLUKE



Measurement capability:

- 400 A ac current measurement
 - 600 V ac and dc voltage measurement
 - True-rms ac voltage and current for accurate measurements on non-linear signals
 - Resistance measurement up to 4000 Ω with continuity detection (325 40kΩ)
- Features:
- Slim, ergonomic design
 - CAT IV 300 V/CAT III 600 V safety rating
 - Hold button
 - Two-year warranty
 - Soft carrying case

Specification	323	324	325
AC Current range	400.0A	40.00A/400.0A	40.00A/400.0A
DC Current range	-	-	40.00A/400.0A
Continuity	≤ 70Ω	≤ 30Ω	≤ 30Ω
Capacitance	-	100.0 μF to 1000 μF	100.0 μF to 1000 μF
Frequency	-	-	5.0 Hz to 500.0 Hz
Backlight	-	Yes	Yes
Contract temperature	-	-10°C to 400.0°C (14.0°F to 752.0°F)	-10°C to 400.0°C (14.0°F to 752.0°F)
Min/Max	-	-	Yes
Weight	265g	208g	283g

Price Each

Order Code	Product Code	Description	1+
WX38633	323	Clamp Meter	£91.38
WX60915	324	Clamp Meter	£108.92
WX60916	325	Clamp Meter	£146.77

Martindale CM76 400A AC/DC Clamp Meter



MARTINDALE
ELECTRIC

NEW

- A general purpose clamp meter which provides accurate measurement of AC and DC current, AC and DC voltage, resistance, frequency and capacitance
- It has min/max functions to identify the smallest and largest values over time and a hold function to freeze the reading while measuring in difficult to access locations
- The clamp has a generous jaw diameter of 27mm and additional benefits include duty cycle, diode test and audible continuity sounder

- There is a useful torch between the jaws to illuminate the conductor under test
- Display: LCD, 4 1/2 digit display with analog bargraph
- AC Voltage: 1mV to 750V, +/- 0.8% + 3 digits
- AC Current: 0.01A to 400A +/- 2.0% + 6 digits
- DC Voltage: 0.1mV to 1000V, +/- 0.7% + 2 digits
- Resistance: 0.1Ω to 40MΩ, +/- 0.8% + 3 digits
- Capacitance: 0.01nF to 4000μF, +/- 4.0% reading + 5 digits
- Frequency: 1mHz to 10MHz, +/- 0.5% + 3 digits
- Jaw Diameter: 27mm
- Continuity beeper, hold, min/max, duty cycle, capacitance
- Polarity: Automatic, positive implied, '-' for negative polarity indication
- Overrange: (OL) or (-OL) is displayed
- Low Battery Indication: Battery symbol displays when voltage drops below 3.7V
- Sampling Rate: 3 times per second, bargraph 30 times per second
- Auto Power Off: after approx 15 minutes
- Operating Temperature: 0°C to +40°C
- Storage Temperature: -10°C to +50°C
- Altitude: up to 2000m
- Power: 3 x 1.5V batteries, AAA (included)
- Dimensions: 208 x 78 x 35mm
- Weight: 340g approx (including batteries)
- Safety: Conforms to BS EN 61010-1, BS EN 61010-2-32, CAT III 600V, Class II Double Insulation
- Pollution Degree: 2
- EMC: Conforms to BS EN 61326
- Supplied with TL16 test leads, carry case, battery, and instructions

Price Each

Order Code	Product Code	1+	3+
WX63828	CM76	£141.27	POA

Martindale CM82 AC Clamp Meter



MARTINDALE
ELECTRIC

NEW

- The CM82 is a high specification 1000A clamp meter, packed full of functions for the installation, testing and maintenance of domestic and industrial installations
- It is light enough for easy one handed operation but still robust enough for use in harsh environments
- This compact meter provides accurate measurement of AC voltage to 750V, DC voltage to 1000V and AC current to 1000A
- It has the same test functions you would find on a high specification multimeter making this clamp a comprehensive testing solution for electricians, maintenance and service engineers
- LCD display
- AC Voltage: 0.1mV to 750V, autoranging (50Hz to 500Hz), (5 Ranges) Accuracy: +/- 1.5% + 5 digits
- AC Current: 0.01A to 1000A (3 ranges), (50Hz to 400Hz) Accuracy: +/- 2.0% + 6 digits; (<600A) (50Hz to 60Hz) +/- 2.5% + 6 digits (>600A) (50Hz to 60Hz)
- DC Voltage: 0.1mV to 1000V, autoranging (5 ranges) Accuracy: +/- 0.5% + 2 digits
- Resistance Ranges: 400Ω, 4kΩ, 40kΩ, 400kΩ, 4MΩ, 40MΩ Resolution: 0.1Ω on 400Ω range
- Accuracy Ranges
- +/- 1.2% + 5 digits on 400Ω to 400kΩ,
- +/- 2% + 5 digits on 4MΩ,
- +/- 3.5% + 5 digits on 40MΩ
- Capacitance: 4μF to 4mF (4 ranges)
- Frequency: 0.001 kHz to 1MHz (4 ranges)
- Max Conductor size: 51mm diameter or 70x18mm bus bar
- Continuity: Buzz at <25Ω
- Diode Test
- Dimensions: 279 x 103 x 53mm
- Weight: 515g approx
- Supplied with TL16 test leads, carry case, battery, and instructions

Price Each

Order Code	Product Code	1+	3+
WX63829	CM82	£98.75	POA

Martindale CM84 AC/DC Clamp Meter



MARTINDALE
ELECTRIC

NEW

- The CM84 is a high specification 1000A clamp meter, packed full of functions for the installation, testing and maintenance of domestic and industrial installations
- It is light enough for easy one handed operation but still robust enough for use in harsh environments
- This compact meter provides accurate measurement of AC voltage to 750V, DC voltage to 1000V and AC current to 1000A
- It has the same test functions you would find on a high specification multimeter making this clamp a comprehensive testing solution for electricians, maintenance and service engineers
- This has the added benefit of DC current measurement to 1000A and has a useful DC current zero function
- LCD display
- AC Voltage: 0.1mV to 750V, autoranging (50Hz to 500Hz), (5 Ranges) Accuracy: +/- 1.5% + 5 digits
- AC Current: 0.1A to 1000A (2 ranges), (50Hz to 400Hz) Accuracy: +/- 2.0% + 6 digits; (<600A) (50Hz to 60Hz) +/- 2.5% + 6 digits (>600A) (50Hz to 60Hz)
- DC Voltage: 0.1mV to 1000V, autoranging (5 ranges) Accuracy: +/- 0.5% + 2 digits
- DC Current: 100mA to 1000A Accuracy: +/- 2.0% + 5 digits; (<600A) +/- 3% + 5 digits (>600A)
- Resistance Ranges: 400Ω, 4kΩ, 40kΩ, 400kΩ, 4MΩ, 40MΩ Resolution: 0.1Ω
- Accuracy Ranges
 - +/- 1.0% + 5 digits to 400kΩ,
 - +/- 2% + 5 digits on 4MΩ,
 - +/- 3.5% + 5 digits on 40MΩ
- Frequency: 0.001 kHz to 1MHz
- Max Conductor size: 57mm diameter or 70x18mm bus bar
- Continuity: Buzz at <25Ω
- Diode Test
- Dimensions: 281 x 108 x 53mm
- Weight: 570g approx
- Supplied with TL16 test leads, carry case, battery, and instructions

Price Each

Order Code	Product Code	1+	3+
WX63830	CM84	£159.00	POA

Martindale CM87 High Current AC/DC True RMS



MARTINDALE
ELECTRIC

NEW

- The CM87 is a high specification True RMS clamp meter, packed full of functions for the installation, testing and maintenance of domestic and industrial installations
- This robust clamp meter provides True RMS measurement of AC current up to 1500A and AC voltage to 750V
- It will also measure DC current to 2000A and DC voltage to 1000V
- The CM87 shares all of the same features on the CM82/CM84 but has the added benefit of temperature measurement between -20°C to 1000°C and is supplied with a K-type thermocouple
- It also has the same test functions you would expect to find on a high specification multimeter to make this a comprehensive testing solution for electricians, maintenance and service engineers

- LCD display
- AC Voltage: true RMS 0.001mV to 750V, autoranging, Accuracy: +/- 1.5% + 8 digits
- AC Current: true RMS 0.1A to 1500A Accuracy: +/- 2.0% + 10 digits; (<600A) (50Hz to 60Hz)
- DC Voltage: 0.001mV to 1000V, autoranging (4 ranges) Accuracy: +/- 0.5% + 2 digits
- DC Current: 100mA to 1000A Accuracy: +/- 2.0% + 5 digits; (<600A)
- Resistance Ranges: 660Ω, 6.6kΩ, 66kΩ, 660kΩ, 6.6MΩ, 66MΩ Resolution: 0.1Ω on 660Ω
- Accuracy Ranges
 - +/- 1.0% + 5 digits to 660kΩ,
 - +/- 2% + 5 digits on 6.6MΩ,
 - +/- 3.5% + 5 digits on 66MΩ
- Capacitance: 0.001nF to 6.6mF (6 ranges)
- Frequency: 0.001 kHz to 1MHz (6 ranges)
- Temperature: -20°C to 1000°C (-4°F to 1832°F)
- Max Conductor size: 57mm diameter or 70x18mm bus bar
- Continuity: Buzz at <30Ω
- Diode Test, Duty cycle
- Dimensions: 281 x 108 x 53mm
- Weight: 585g approx
- Supplied with TL16 test leads, carry case, type K thermocouple, battery, and instructions

Price Each

Order Code	Product Code	1+	3+
WX63831	CM87	£248.00	POA

CM58 1000A AC/DC True RMS Clamp Meter



MARTINDALE
ELECTRIC

- Representing outstanding value for money, this clamp is feature packed measuring AC & DC volts, resistance, frequency & continuity as well as a diode test
- The large 3 1/2 digit LCD display has a 42 segment analogue bar graph, giving better resolution of changing readings
- Additional features include Max & Min reading memories, along with Peak & Hold
- The clamp is autoranging as standard, but has a manual range change / hold for optional override of the autorange function.
- The Martindale CM58 is supplied with standard test leads, soft carry case, battery and instruction manual.
- AC Voltage: 0.1mV to 750V autoranging, 50Hz to 500Hz (5 ranges), Accuracy: +/- 1.5% + 4 digits
- DC Voltage: 0.1μV to 1000V autoranging (5 ranges), Accuracy: +/- 0.5% + 1 digit
- AC Current: 100mA to 1000A (2 ranges), true-RMS, 50 - 400Hz Accuracy: 0 - 600A +/- 1.5% + 5 digits; >600A +/- 2.0% + 5 digits
- DC Current: 100mA to 1000A (2 ranges) Accuracy: 0 - 600A +/- 1.5% + 5 digits; 600 - 800A +/- 2.5% reading +/- 5 digits; >800A +/- 3.5% + 5 digits
- Resistance Ranges: 100mΩ to 40MΩ (6 ranges)
- Capacitance: 1pF to 40μF, autoranging (5 ranges)
- Continuity: Buzz at <40Ω
- Frequency: 0.1Hz - 400kHz, autoranging (5 ranges)
- Max Conductor: 57mm Ø or 70 x 18mm bus bar
- Diode Test
- Dimensions: 277 x 102 x 49mm
- Weight: 540g approx

Price Each

Order Code	Product Code	1+	3+
WX60919	CM58	£189.00	POA

AD40B Clamp Meter



AMPROBE

- Compact Clamp Meter measures up to 400A AC in tight spaces
- Measures low AC current in 40A range.
- Auto-ranging, 400A range
- 10mA resolution in 40A range
- 4000-count display with bargraph
- Autoranging
- Data Hold and Auto-Off
- CAT III 600V rated

Price Each

Order Code	Product Code	1+	4+
WX32039	AD40A	£68.00	POA

EXTECH EX623



EXTECH
INSTRUMENTS
A FLIR COMPANY

- Built-in dual thermocouple inputs
- Built-in non-contact voltage detector
- InfraRed thermometer
- DC μA multimeter function
- True RMS
- 40,000 count
- DC current
- Dual Type K & IR temperature
- Capacitance & Frequency
- Jaw size 1.4"

Function

Display count	40000
ACA accuracy	1.5%
AC/DC Current	400A
AC Voltage	600V
DC Voltage	600V
DC μA current	4000μA
Resistance	40MΩ
Frequency	40MHz
Capacitance	40,000μF
Temperature (type K)	-58 to 1832°F - Dual Inputs
Temperature (Infrared)	-58 to 518°F

Price Each

Order Code	Product Code	1+	4+
WX43944	EX623	£180.32	POA



- This unique model includes built in non-contact InfraRed temperature measurements with laser pointer
- True RMS
- Peak hold captures inrush currents and transients
- Type K temperature
- High resistance, capacitance & frequency ranges
- 1.7" jaw size

Function	
AC Current	1000A
DC Current	1000A
AC Voltage	600V
DC Voltage	600 V
Resistance	40MΩ
Capacitance	40mF
Frequency	4kHz
DC Voltage	400.0 V
Temperature (Infrared)	-50 to 270°C
Temperature (Type K)	-70 to 760°C

Price Each

Order Code	Product Code	1+	4+
WX43946	EX830	£159.16	POA



- The Fluke 365 is a new, innovative Fluke clamp meter, offering a thin, small jaw design that makes it easy to get around tightly packed wires
- 200 A ac and dc current measurement with detachable jaw
- 600 V ac and dc voltage measurement
- Detachable jaw makes accessing wires and viewing the display easier
- Built in flashlight/torch allows for easy illumination and identification of wires
- CAT III 600 V
- Compact design fits in your hand and can be used while wearing protective equipment
- State of the art signal processing allows for use in noisy electrical environments while providing stable readings
- Large, easy to read, backlight display automatically sets the correct measurement range so you do not need to change switch positions while taking a measurement
- Three-year warranty
- Soft carrying case
- Safety conformance IEC/EN 61010-1:2001, CAT III 600 V
- Included accessories:
Coated instruction card
Safety information sheet
Soft carrying case
TL75 test leads
Five AA Alkaline batteries

Fluke 365

Diameter of measurable conductor	0.71" or 18 mm max
Operating temperature	-14 to 122°F (-10 to 50°C)
Storage Temperature	-40 to 140°F (-40 to 60°C)
Operating Humidity	< 90% @ 10 to 30 °C, < 75% @ 30 to 40°C
Operating Altitude	0 to 2000 m
Size	225 x 65 x 46 mm, (8.858 x 2.559 x 1.811 in.)
Temperature Coefficient	0.01% °C (<18°C or > 28°C)
Weight	275g, (10 oz.)
Warranty	Three years

Price Each

Order Code	Product Code	1+	4+
WX53595	365	£199.00	POA



NEW

- A unique insulation clamp meter for the installation, testing and maintenance of domestic and industrial installations
- This high specification clamp meter can perform insulation tests to 6G Ohms with 5 test voltages from 50V to 1000V
- The clamp provides True RMS measurement of AC current to 1500A and AC voltage to 750V
- It will also measure DC current to 2000A and DC voltage to 1000V
- The CMI210 has all the same test functions you would expect to find on a high specification multimeter with the added benefit of temperature measurement

- AC Voltage: true RMS 0.001mV to 750V, autoranging, Accuracy: +/- 1.5% + 8 digits
- AC Current: true RMS 0.1A to 1500A (2 Ranges) Accuracy: +/- 2.5% + 10 digits; (<600A) (50Hz)
- DC Voltage: 0.001mV to 1000V, autoranging (4 ranges) Accuracy: +/- 0.5% + 2 digits
- DC Current: 0.1A to 2000A (2 Ranges) Accuracy: +/- 2.0% + 5 digits; (<600A)
- Insulation Resistance: 300kΩ to 6GΩ depending on voltage test Accuract 250-1000V 1.5% + 5
- Capacitance: 0.001μF to 6.6mF (4 ranges)
- Frequency: 0.01 kHz to 10MHz (2 ranges)
- Resistance Ranges: 660Ω, 6kΩ, 60kΩ, 600kΩ, 6MΩ, 60MΩ Resolution: 0.1Ω on 600Ω, Accuracy Range +/- 1.0% + 5 digits on 600Ω to 600kΩ
- Temperature: -50°C to 1300°C (-58°F to 2372°F) K-type probes
- Max Conductor size: 57mm diameter or 70x18mm bus bar
- Continuity: Buzz at <40Ω
- Dode Test, Duty cycle
- Dimensions: 326 x 108 x 53mm
- Weight: 720g approx
- Supplied with test leads, carry case, type K thermocouple, battery, and instructions

Price Each

Order Code	Product Code	1+	3+
WX63832	CMi210	£369.00	POA



- This 3 ¼ digit AC Leakage Current Tester has a high resolution and a large shield transformer jaw which eliminates the influence of other current conductors and minimises the effects of external magnetic fields allowing you to perform accurate and reliable measurements in crowded electrical environments.
- Ideal for many applications including power system checks and installation.
- 25.1mm display with function indicators
 - Large 30mmØ shield transformer jaw
 - 5 ranges available: 40mA, 400mA, 4A, 40A & 100A
 - Frequency Selector Switch to eliminate the effects of high frequency noise & harmonics when taking AC current measurements
 - Bar graph display with a response time of 20 times per second for transient observation
 - Max/Min and Data Hold
 - Overload protection for Ohm measurements at 600V
 - Manual ranging via single click action rotary switch
 - Zero function
 - Low Battery Indication
 - Auto Power off after 30mins – can be user disabled
 - Supplied with test leads, protective rubber boot, hand strap, carrying bag, manual and battery
- Calibration Certificate
CAL-LC Traceable Calibration Certificate available
UKAS-LC UKAS Calibration Certificate available

Function	Range	Resolution	Accuracy
			50/60Hz 40/1KHz
AC Current	40mA	10μA	±1.0%±0.5mA
	400mA	100μA	±3.0%±5.0mA
	4A	1mA	±4.0%±0.1A
	40A	10mA	±4.0%±1.0A
	80A	100mA	±2.5%±1.0A
	80-100A	100mA	±5.0%±1.0A
Though this meter can display up to 400A, it is not calibrated beyond 100A			
AC Voltage	400V	0.1V	±1.5%±2dgts ±2.0%±4dgts
Resistance	40-400Ω	0.1Ω	±1.0%±2dgts

Also see
our storage
equipment
section

Function	Range	Resolution	Accuracy
Continuity Test (audible alarm)	<38.0Ω		
Power	1 x 9V PP3 Alkaline Battery (LR-61)		
Dimensions	210 x 62 x 35.6mm		
Weight	200g		
Price Each			
Order Code	Product Code	1+	4+
WX60920	DT-9809	£76.50	POA

Cable Locators

Professional Cable Locator Kit



- This is a professional general purpose cable locator kit consisting of a transmitter and receiver to detect or trace conductors
- Ideal for many applications including tracing cables in walls/underground, locating fuses/breakers on final circuits and finding interruptions/short circuits in cables and electrical floor heating systems
- Can be used for all applications (both voltage free and live) without the use of other instruments
- Allows conductor tracing in walls and soil
- Transmitter with 2.6mm LCD display for transmitting level, transmitting code & external voltage
- Receiver with 3.7mm LCD display and Backlight for level of receiving signal, code of receiving signal & live voltage indication
- 5 ranges available: 12V, 50V, 120V, 230V & 400V (Transmitter)
- Automatic or manual adjustment of receiving signal sensitivity
- User selectable audible alarm for reception signal
- Built in Flash Light for use in dark environments (Receiver)
- Low Battery Indication
- Auto Power Off after 1hr (Transmitter) after 5mins (Receiver)
- Supplied with transmitter, receiver, crocodile clips, test leads, carrying case, manual & batteries

		Transmitter	Receiver
Voltage Range	12 - 400V	*	
Frequency Range	0 - 60Hz	*	
Output Signal	125kHz	*	
External Voltage Detection	Max. 400V AC/DC	*	
Tracing Depth (wall/underground cables)	0 - 2.5m		*
Voltage Detection	0 - 0.4m		*
Electrical Safety	EN 61010-1	*	*
Overvoltage Category	CAT III 300V	*	*
Operating Temperature	0 to 40°C	*	*
Storage Temperature	-20 to 60°C	*	*
Power	2 x 9V PP3 Alkaline Batteries (LR-61)	*	*
Dimensions	130 x 69 x 32mm	*	
	192 x 61 x 37mm		*
Weight	130g	*	
	180g		*
Price Each			
Order Code	Product Code	1+	4+
WX60921	LA-1012	£225.00	POA

Martindale CD1000 Cable Detector Kit



MARTINDALE
ELECTRIC

NEW

- The Martindale CD1000 is a professional general purpose Cable Detector
- It is ideal for tracing cables in walls and underground, locating fuses/breakers on live or dead circuits and locating interruptions and open-circuits in cables and electrical floor heating systems
- It can also be used for tracing metallic water and heating pipes
- Using advanced digital circuit technology the Transmitter sends, to the target cable, an AC voltage modulated by digital signals which generate an alternating electric field
- The alternating field is detected by the receiver sensor head, magnified and decoded
- By localising the maximum signal strength detected, the path of a cable can be traced, a fuse can be found or a break in a cable/conductor
- The unit is supplied as a complete kit comprising of a Transmitter and Receiver in a case, set of test leads with crocodile clips, earthing rod, batteries and instructions
- For all applications (live or dead cables) without additional instruments
- Proven digitally coded sender signal guarantees clear signal identification
- Transmitter with LCD display for transmitting level, transmitting code
- Receiver with a backlight LCD display for level of receiving signal, code of receiving signal and live voltage indication
- Automatic or manual adjustment of receiving signal sensitivity
- Mute function
- Auto power off
- Additional torch lamp for working in dark environments
- Additional transmitters can be used for multiple users

		Price Each	
Order Code	Product Code	1+	3+
WX63833	CD1000	£253.75	POA

Power Loggers/Analysers

Fluke 430 Series II Three-Phase Power Quality and Energy Analyzers



FLUKE

More detailed power quality analysis capability, and a new Fluke-patented energy monetization function

The new 430 Series II Power Quality and Energy Analyzers offer the best in power quality analysis and introduce, for the first time ever, the ability to monetarily quantify energy losses. The new Fluke 434, 435 and 437 Series II models help locate, predict, prevent, and troubleshoot power quality problems in three-phase and single-phase power distribution systems. Additionally, the Fluke-patented energy loss algorithm, Unified Power Measurement, measures

and quantifies energy losses due to harmonics and unbalance issues, allowing the user to pinpoint the origin of energy waste within a system.

Energy loss calculator: Classic active and reactive power measurements, unbalance and harmonic power, are quantified to pinpoint true system energy losses in dollars (other local currencies available).

- Power inverter efficiency: Simultaneously measure AC output power and DC input power for power electronics systems using optional DC clamp.
- PowerWave data capture: 435 and 437 Series II analyzers capture fast RMS data, show half-cycle and waveforms to characterize electrical system dynamics (generator start-ups, UPS switching etc.).
- Waveform capture: 435 and 437 Series II models capture 100/120 cycles (50/60Hz) of each event that is detected in all modes, without set-up.
- Automatic Transient Mode: 435 and 437 Series II analyzers capture 200 kHz waveform data on all phases simultaneously up to 6 kV.
- Fully Class-A compliant: 435 and 437 Series II analyzers conduct tests according to the stringent international IEC 61000-4-30 Class-A standard.
- Mains signaling: 435 and 437 Series II analyzers measure interference from ripple control signals at specific frequencies.
- 400 Hz measurement: 437 Series II analyzer captures power quality measurements for avionic and military power systems.
- Troubleshoot real-time: Analyze the trends using the cursors and zoom tools.
- Highest safety rating in the industry: 600 V CAT IV/1000 V CAT III rated for use at the service entrance.
- Measure all three phases and neutral: With included four flexible current probes with enhanced thin flex designed to fit into the tightest places.
- Automatic Trending: Every measurement is always automatically recorded, without any set-up.
- System-Monitor: Ten power quality parameters on one screen according to EN50160 power quality standard.
- Logger function: Configure for any test condition with memory for up to 600 parameters at user defined intervals.
- View graphs and generate reports: With included analysis software.
- Battery life: Seven hours operating time per charge on Li-ion battery pack.

Unified Power Measurement

Fluke's patented Unified Power Measurement system (UPM) provides the most comprehensive view of power available, measuring:

- Parameters of Classical Power (Steinmetz 1897) and IEEE 1459-2000 Power
- Detailed Loss Analysis
- Unbalance Analysis

These UPM calculations are used to quantify the fiscal cost of energy loss caused by power quality issues. The calculations are computed, along with other facility-specific information, by an Energy Loss Calculator that ultimately determines how much money a facility loses due to wasted energy.

Energy savings

Traditionally energy savings are achieved by monitoring and targeting, or in other words, by finding the major loads in a facility and optimizing their operation. The cost of power quality could only be quantified in terms of downtime caused by lost production and damage to electrical equipment. The Unified Power Measurement (UPM) method now goes beyond this to achieve energy savings by discovering the energy waste caused by power quality issues. Using the Unified Power Measurement, Fluke's Energy Loss Calculator (see screen shot below) will determine how much money a facility is losing due to waste energy

Unbalance

UPM gives a more comprehensive breakdown of the energy consumed in the plant. In addition to measuring reactive power (caused by poor power factor), UPM also measures the energy waste caused by unbalance; the effect of unevenly loading each phase in three-phase systems. Unbalance can often be corrected by reconnecting loads on different phases to ensure the current drawn on each phase is as equal as possible. Unbalance can also be corrected by installing an unbalance reactance device (or filter), that will minimize the effects. Correcting unbalance should be basic good housekeeping in the facility as unbalance problems can cause motor failure or shorten equipment life expectancy. Unbalance also wastes energy. Using UPM can minimize or eliminate that energy waste, thus saving money.

Harmonics

UPM also provides details of the energy wasted in your facility due to the presence of harmonics. Harmonics may be present in your facility due to the loads you operate or may be caused by loads in adjacent facilities. The presence of harmonics in your facility can lead to:

- overheating transformers and conductors
- nuisance tripping of circuit breakers
- early failures of electrical equipment

Quantifying the cost of wasted energy due to the presence of harmonics simplifies the return-on-investment calculation needed to justify purchasing harmonic filters. By installing a harmonic filter the ill effects of harmonics can be reduced and energy waste eliminated, resulting in lower operational costs and more reliable operation.

Please contact local Brammer Branch or your Field Sales Representative for more details.

Price Each

Order Code	Product Code	1+
WX60922 ‡	434II	£3,950.00
WX60923 ‡	435II	£4,926.00
WX60924 ‡	437II	£6,701.00

‡ Special delivery applies. Please ask for details

Fluke 1735



FLUKE

The Fluke 1735 Power Logger is the ideal electrician or technician's tool for conducting energy studies and basic power quality logging. Set the 1735 up in seconds with the included flexible current probes and color display. The 1735 logs most electrical power parameters, harmonics and captures voltage events.

- Record power and associated parameters for up to 45 days
- Monitor maximum power demand over user-defined averaging periods
- Prove the benefit of efficiency improvements with energy consumption tests
- Measure harmonic distortion caused by electronic loads
- Improve reliability by capturing voltage dips and swells from load switching
- Easily confirm instrument setup with color display of waveforms and trends
- Measure all three phases and neutral with included 4 flexible current probes
- View graphs and generate reports with included Power Log software
- Compact, rugged design with IP65 case, 600 V CAT III and 2-year warranty
- Included with the 1735 Soft carrying case
- 4 flexible current probes (15 A/150 A/3000 A)
- Power Log software
- Voltage leads and clips
- Color localization set
- PC interface cable
- Universal AC adapter
- Printed English manual
- Multi-language manual CD

Features

Oscilloscope mode

- Two modes: Six channels simultaneously - three voltages and three currents
- Two channels voltage and current on a single phase

Harmonics

- Voltage and current harmonics to the 40th as a bar graph
- Detailed information for each harmonic
- Total harmonic distortion (V and I)
- Harmonics recording 1 second to 900 s (minimum, maximum and average values)

Power and Energy

- Measurements of: Active power (W), apparent power (VA), reactive power (VAR), distortion power (D)
- Power factor and cos ϕ
- Active and reactive energy
- Recording averages 1 second to 900 s (minimum, maximum and average values)

Events

- Detections of voltage dips, swells and interruptions
- Triggering based on half-cycle RMS values

Memory

- Store up to 50 screenshots
- Recordings stored as a six screen summary for immediate viewing
- Recording consist of up to 1440 intervals
- Measured values are down loaded via RS-232 port with PQLogView software

Price Each

Order Code	Product Code	1+
WX53596	1735	£2,304.00

Electrical Technician Kit

Electrical Kit

EXTECH
A FLIR COMPANY

- The ideal kit to meets plant maintenance, HVAC or electrical technician's needs
- Contents include: Non-contact IR Thermometer allows quick surface temperature measurement
- EX430 True RMS MultiMeter
- MA200 400A Clamp Meter
- 42510 IR Thermometer
- 40130 Non-Contact Voltage Detector
- Supplied in an attractive hard carrying case

Price Each

Order Code	Product Code	1+	5+
WX43947	TK430-IR	£204.29	POA

PAT Testers

Fluke 6500-2



FLUKE

The Fluke 6500-2 PAT tester verifies the electrical safety and operation of portable appliances in accordance with relevant guidelines and regulations. With powerful auto test capabilities and with simplified controls, increases the number of tests you can perform per day without compromising results. Performs the tests required for class I and class II appliances.

- Fluke simplifies portable appliance testing
- Compact and lightweight
- Efficient to work with and easy to carry around and has extra space in the hard case for accessories
- One touch simplicity
- Pre-set and user-definable test routines are initiated from a single button – to speed up test procedures and save you time on site
- A better way of working
- Rapid data entry is via a QWERTY keyboard (or optional Fluke barcode scanner) and fast data transfer from the main memory or the Compact Flash memory card

Price Each

Order Code	Product Code	1+	4+
WX41987	6500-2	£1,185.00	POA

HPAT500 Handheld Portable Appliance Tester

MARTINDALE
ELECTRIC

- Lightweight hand-held battery powered PAT tester for use where there is no convenient power socket
- It's easy to use and reliable, with a simple one button, one test sequence selection, displays measured values as well as a "pass" or "fail" decision and comes complete with a mains charger
- Tests both 240V & 110V appliances
- User functions include: Class I, Class II and power lead tests
- Insulation Test at 500V
- 200mA DC continuity test, with two pass levels
- Displays measured values and PASS or FAIL result
- Dimensions: 90 x 210 x 54mm
- Weight: Approx 700g (including batteries and leads)
- Includes: carry case, manual, rechargeable batteries, mains charger, mains lead, IEC lead, earth bond probe (TL67)
- Displays the actual reading as well as pass/fail indication

Price Each

Order Code	Product Code	1+	3+
WX60925	HPAT500	£409.00	POA

HPAT600 Handheld Portable Appliance Tester

MARTINDALE
ELECTRIC

- Lightweight hand-held battery powered PAT tester
- The HPAT600 is crammed with features such as dual insulation test voltages, user selectable pass levels, easy or fast operating mode, IEC lead test and test data storage for up to 200 appliances - equivalent to a whole day's testing. This data can be scrolled through to verify testing has been correctly done, but cannot be downloaded
- The HPAT600 can be operated in easy (manual) or fast (automatic) mode. In manual mode, aimed at the newcomer to PAT testing, a connection diagram for the selected test type is shown on the display and each step of a test requires user confirmation by a press of the OK button. In automatic mode, the HPAT600 will routinely run through a selected test sequence, needing only one button press, without any further user interaction unless a failure is encountered.
- Speeds up PAT testing
- Simple one button, one test sequence selection
- Select your own pass levels to increase flexibility
- Displays measured values and PASS or FAIL result
- Supplied with both mains and car chargers
- 250V / 500V Insulation Test (250V option for filtered PSUs & sensitive IT equipment)
- Complies with the new IEE Code of Practice
- 200mA Earth Bond Test - IT Safe
- Tests both 240V & 110V appliances
- Memory: 200 tests can be stored
- Overload protection: 300V AC/DC

- Protection Class: IP20
- Safety: Complies to BS EN 61010
- Temperature Range: -10 to 40°C, noncondensing
- Power supply: 6 x 1.2V AA NiMH rechargeable batteries 1800mAh or greater
- Dimensions: 90 x 210 x 54mm
- Weight: Approx 700g (including batteries and leads)
- Includes: carry case, manual, rechargeable batteries, mains charger, mains lead, IEC lead, earth bond probe (TL67), in-car charger, earth null adaptor

200mA Earth Bond Test - IT Safe

		Price Each	
Order Code	Product Code	1+	3+
WX60926	HPAT600	£499.00	POA

PATREG Portable Appliance Register



- This handy A5 register allows you to keep manual records of PAT testing results to ensure your system is fully compliant

		Price Each	
Order Code	Product Code	1+	3+
WX60927	PATREG	£9.18	POA

HPAT500KIT1 Basic PAT Tester Kit



- This value for money kit provides all you need for basic PAT testing with pass and fail labels, record book to record results and two additional handy tools, a socket tester and non-contact voltage detector
- Lightweight hand-held battery powered PAT tester
- Simple one button, one test sequence selection
- Displays measured values & PASS or FAIL decision
- 200mA Earth Bond Test- IT Safe
- Tests both 240V & 110V appliances
- Kit Includes: HPAT500 tester, CP501 Check Plug, VT2 Voltage Indicator, Pass labels (500), Fail labels (100), PAT register booklet, Batteries, 230V Extension lead adaptor (EX332), Mains charger (PSUHPAT230)

		Price Each	
Order Code	Product Code	1+	3+
WX60928	HPAT500KIT1	£489.00	POA

HPAT600KIT1 Advanced PAT Tester Kit



- This advanced PAT testing kit includes the HPAT600 as well as pass and fails labels and a record book
- Lightweight hand-held battery powered PAT tester
- Simple one button, one test sequence selection
- Displays measured values & PASS or FAIL decision
- 200mA Earth Bond Test - IT Safe
- User adjustable pass limits
- 250V / 500V Insulation Test
- Tests both 240V & 110V appliances
- It also includes a socket tester and a non-contact voltage indicator.
- Kit Includes: HPAT600 tester, CP501 Check Plug, VT2 Voltage Indicator, Pass labels (500), Fail labels (100), PAT register booklet, Batteries, 230V Extension lead adaptor (EX332), Mains charger (PSUHPAT230), Null pin on key fob (TL178)

		Price Each	
Order Code	Product Code	1+	3+
WX60929	HPAT600KIT1	£589.00	POA

LAB1 PAT Testing Pass Labels



- Roll of 500 small PASS labels (30 x 20mm)
- Suitable for plug tops and small appliances

Price Per Roll 500

Order Code	Product Code	1+	3+
WX60930	LAB1	£13.67	POA

FAIL1 PAT Testing Fail Labels



- The fail labels are essential to prevent re-use of unsafe equipment which has failed a PAT test. Available in rolls of 100 (60 x 30mm)

Price Per Roll 100

Order Code	Product Code	1+	3+
WX60931	FAIL1	£5.47	POA

Voltage & Continuity Testers

Fluke Two-Pole Tester



VOLTAGE/CONTINUITY TESTER WITH LCD, OHMS, SWITCHABLE LOAD - Fluke's new two-pole testers are built with you in mind. They give you the best combination of safety, ease-of-use and fast answers available anywhere.

Specifications	T90	T110	T130	T150
Voltage ac/dc	12 V to 690 V	12 V to 690 V	6 V to 690 V	6 V to 690 V
Continuity	-	0 to 400 kΩ	0 to 400 kΩ	0 to 400 kΩ
Frequency	-	0/40 to 400 Hz	0/40 to 400 Hz	0/40 to 400 Hz
Phase rotation	-	100 V to 690 V	100 V to 690 V	100 V to 690 V
Resistance measurement	-	-	-	Up to 1999 Ω
Response time (LED indicator)	< 0.5 s	< 0.5 s	< 0.5 s	< 0.5 s
200 k input impedance	Current draw 3.5 mA @ 690V, Current draw 1.15 mA @ 230V	Current draw 3.5 mA @ 690V, Current draw 1.15 mA @ 230V	Current draw 3.5 mA @ 690V, Current draw 1.15 mA @ 230V	Current draw 3.5 mA @ 690V, Current draw 1.15 mA @ 230V
7 k input impedance (With load buttons pressed)	-	Current draw 30 mA @ 230V	Current draw 30 mA @ 230V	Current draw 30 mA @ 230V
Safety rating	CAT II 690V CAT III 690V	CAT III 690V CAT IV 600V	CAT III 690V CAT IV 600V	CAT III 690V CAT IV 600V
IP rating	IP54	IP64	IP64	IP64

Price Each

Order Code	Product Code	Description	1+
WX60933	T90	Two-Pole Voltage Tester	£37.00
WX60934	T110	Two-Pole Voltage Tester	£56.00
WX60935	T130	Two-Pole Voltage Tester	£89.00
WX60936	T150	Two-Pole Voltage Tester	£109.00

Fluke T5 Voltage and Continuity Tester



- Select volts, Ohms, or current and the tester does the rest
- Check voltage, continuity and current with one compact tool
- Two models 600V and 1000V
- T5 Voltage, continuity & current testers featuring open jaw current measurement
- AC current measurement to 100A
- Resistance measurement to 1000 Ohms
- Safety CAT III 600V(T5-600) and CAT III-1000V(T5-1000)
- Two year warranty
- Model shown is the T5-1000

Price Each

Order Code	Product Code	1+	4+
WX30982	T5-1000	£139.00	POA
WX30983	T5-600	£127.00	POA

GT85e 690V AC/DC LCD Voltage Indicator



- Display of AC and DC voltages
- True resistance measurement
- LCD display with backlight
- Bipolar rotary field testing
- Unipolar phase testing
- Visual and audible output
- Continuity check, visual and audible output
- Diode test
- Polarity display
- Loud bleeper
- Measuring point illumination for poor lighting conditions
- IP64 splashproof and dust tight
- Limited lifetime warranty
- Voltage range: AC/DC 6 - 690V
- Resistance range: 0 - 2000 Ω
- Frequency response: 0 - 65Hz
- Measurement Category: CAT III - 1000V, CAT IV

Price Each

Order Code	Product Code	Description	1+	5+
WX45625	52049407	GT-85NE	£102.00	POA

Martindale VI-13800 Voltage Indicator



NEW

- Before doing any electrical work it is essential to be absolutely certain the circuit is dead
- This BS EN 61243-3:2010 CAT IV 600 V, CAT III 1000V compliant voltage indicator rapidly and safely checks for AC and DC voltages in four stages from 50V to 600V
- The bright, LED indicators give clear and immediate display of the voltage level range and polarity indication
- The tough, moulded case construction combined with heavy duty, double insulated leads which terminate in a lockable and retractable prod sheath and a substantial finger guard, make this a very reliable and safe instrument
- Nominal Voltage Range: 50 - 600V AC / DC
- Nominal Voltage Threshold Indications: 50, 100, 200, 400 V DC/ AC rms
- Nominal Voltage threshold tolerance: < 85% of marked threshold indication
- Polarity indication: from approx 12V DC/AC rms
- AC/DC voltage detection: automatic
- Range detection: automatic
- Response time: < 0.1s
- Frequency range: DC, 1 - 400 Hz
- Test current: < 3.5mA at 600V DC/AC rms
- Duty ratio: 30s ON (operated) / 240s OFF (recovery)
- Environmental
 - Temperature & Humidity (operating & storage): -10°C to 55°C $\leq$ 85% R.H. / -10°C to 55°C $\leq$ 85% R.H.
 - Altitude: up to 2000m
 - IP rating: IP54
- General
 - Power: from circuit under test
 - Dimensions: 205(L) x 67(W) x 27(D) mm
 - Weight: 130g approx.
 - Includes: instructions
- Safety
 - Conforms to BS EN 61243-3:2010 CAT IV 600 V, CAT III 1000V Class II, Double Insulation
 - Pollution Degree: 2
 - EMC: Conforms to BS EN 61326-1
- Voltage Ranges: AC 0 - 49V none lit, 50 - 99V one lit, 100 - 199V two lit, 200 - 399V three lit, 400V+ all lit, DC 0 - 74V none lit, 75 - 149V one lit, 150 - 239V two lit, 240 - 559V three lit, 560V+ all lit
- Operating temperature: -20°C to 50°C
- Overvoltage: CAT III/600V
- IMPORTANT: Voltage indicators should always be tested with a proving unit or known live source before and after use

Price Each

Order Code	Product Code	1+	3+
WX60937	VI13800	£45.75	POA

Voltage Tester



Megger NEW

- The Megger TPT320 voltage tester provides electricians and electrical engineers with voltage indication but has additional functions / features that makes the instrument a versatile instrument
- The TPT320 features both LCD and LED displays that provides AC and DC voltage measurement from 12 to 690 volts, in addition, a continuity function ranging from 0 to 500 k Ω
- Continuity and voltage measurements greater are accompanied by an acoustic sounder
- A bright LED torch feature allows safe working in poorly lit environments
- When conducting a test between phase and earth on a circuit protected by an RCD, RCBO and Safety Breaker the TPT320 will not trip these devices.
- The phase rotation indication feature is simplified which avoids the crossing of the test probes adopted by some 2 pole testers.
- With safety in mind, the TPT320 is CATIV 600 V rated with an IP64 rated strong body that provides easy and comfortable grip.
- GS38 shrouds are provided as standard
- The unit has a feature that will warn the operator of dangerous test voltages even when the batteries have become exhausted.
- Although this tester is primarily for testing in electrical installations the unit can be useful for a wide number of applications
- The TPT320 can be utilised for testing auto electrical and fire alarm systems
- Continuity <500 k Ω
- Display Optical 3 digit, LCD / 8 red LEDs voltage and polarity indication / 2 green LEDs rotary indication / 2 red LEDs for continuity
- and dangerous voltage indication
- Duty Cycle 30s On / 240s Off
- Frequency measurement range
- 40 to 400Hz
- LCD $\pm 3\%$ ± 5 digits
- Operating panel Torch button / buzzer for continuity and dangerous voltage indication
- Phase indication >90 V AC $\pm 10\%$
- Polarity Yes
- Power supply 2 x 1.5 V batteries type AAA LR03
- Test current range <3.5 mA
- Torch White LED
- Humidity 85% RH
- Maximum altitude 2000 metres
- Operating temperature range -5 °C - +40 °C
- Storage temperature range -20°C - +70°C
- Dimensions 67 mm (W) x 205 mm (H) x 19 mm (D)
- Lead length 1.2 metres
- Weight 180g

Price Each

Order Code	Product Code	1+	5+
WX53606	TPT320	£85.35	POA

Proving Unit



Megger

- The Megger MPU690 proving unit provides an alternative portable battery operated voltage source that can verify the correct functioning of a voltage tester.
- The device safely generates a range of voltages from 50 to 690 volts in five steps. At switch on, the unit initially generates 690 volts then after a short period, slowly ramps down through each voltage step until the device switches off.
- The individual voltage steps are indicated by an LED with a power indicator LED that also indicates an exhausted battery.
- The MPU690 features automatic power on when voltage tester probes are inserted into the output terminals, generating a 50 Hz output voltage which simulates the AC mains supply.
- 5 stepped nominal output voltages
- Automatic operation

- High output power suitable for test lamps
- Extended battery life
- Magnetic base
- Rugged case
- Output voltage 50 - 690 volts in five stages: 50 V, 100 V, 230 V, 400, 690 V
- Power output 10 W max.
- Power On / Off Automatic on when probes are inserted into output terminals / auto off
- Indicators 5 LEDs for output voltages plus power LED
- Power supply 6 x AA / LR06 alkaline batteries

Price Each

Order Code	Product Code	1+	5+
WX53607	MPU690	£100.60	POA

PD240 Proving Unit



MARTINDALE
ELECTRIC

- The PD240 is a convenient pocket-sized, battery powered proving unit that produces a 240VDC output
- Any device used for voltage detection and for proving dead should be tested before and after use to ensure the safety of the operative
- The PD240 is currently limited to 2mA and is suitable for use with multimeters and other voltage detectors that have an input impedance greater than 120KΩ.
- It has a long battery life and comes complete with a belt clip.
- Output Voltage: 240V DC
- Output Current: 2mA max across 120kΩ, 3.5mA max Short circuit protected
- Battery: 6LR6/MN1604/PP3 (included) Shut-off below 5V
- Body: Flame retardant ABS
- Dimensions: 144 x 63 x 31mm
- Weight: 180g including battery

Price Each

Order Code	Product Code	1+	3+
WX60938	PD240	£59.80	POA

PD440 Proving Unit



MARTINDALE
ELECTRIC

- The proving unit produces 440V AC to enable voltage indicators to be fully checked
- This unit is designed for indicators with 230V (single phase) and 415/440V AC (3 phase) detection ranges, such as the Martindale V113700/2
- The PD440 can also check Drummond and other filament test lamps as its output is sufficient to illuminate the bulbs
- The proving unit is one of the few designs to check indicators with ranges above 250V.
- Output Voltage:
230V into a 5kΩ load
440V into a 700kΩ load

- Output Loading: > 4kΩ
- Operating Temperature: -10 to 40°C at max. 70% RH
- Batteries: 6 x LR6 (MN1500) 1.5V Alkaline batteries or equivalent (included)
- Dimensions: 143 x 84 x 50mm
- Weight: 270g approx (excl batteries)

Price Each

Order Code	Product Code	1+	3+
WX60939	PD440	£84.30	POA

PD690 Proving Unit



MARTINDALE
ELECTRIC

- The Martindale PD690 is a 700V AC proving device, designed to enable voltage indicators to be fully checked, in compliance with Health & Safety recommendations
- Using a voltage indicator without first proving it is working correctly could prove fatal
- This device is designed for indicators with 230V and 415/440V AC detection ranges, such as the Martindale V113700
- The proving unit is one of the few designs to check indicators with ranges above 250V
- The PD690 can also check Drummond and other filament test lamps as its output is sufficient to illuminate the bulb
- This model is not designed for use with multimeters
- Output Voltage: 700V nominal
- Operating Temperature -10°C to +40°C at max 70% RH
- Battery: 6 x LR6 / MN1500 1.5V alkaline batteries or equivalent
- Dimensions: 143 x 84 x 50mm
- Weight 400g approx including battery

Price Each

Order Code	Product Code	1+	3+
WX60940	PD690	£89.00	POA

230V Volt Stick



CIE-group

SABAB

- Lightweight, compact and highly visible
- Used to safely check the presence of an AC voltage without disconnection of equipment
- No current flow needed for correct operation
- High powered LED indicator
- Requires 2 AAA alkaline batteries
- Very accurate as optimised for 230V AC
- Approved to IEC 61010-1 & CATIII 1000VAC
- Sensitivity functions @ 4mm distance from 2.5mm² conductor carrying 220v AC

Price Each

Order Code	Product Code	1+	5+
WX30361	VOLTSTICK-230V	Yellow	£15.55 POA
WX60941	VOLTSTICK-230B	Black	£15.55 POA

110V Volt Stick



CIE-group

SABAB

- Volt Stick 110 – Voltage Indicator – an instant tester for safely checking the presence of a 110v AC voltage
- This high sensitivity version of the Volt Stick provides instant, non-contact checking for the presence of AC voltage down to 110v, without making any disconnections in cables, wall sockets, fuses, circuit breakers, junction boxes etc.
- This 110v version is ideal for construction site temporary supplies and, of course, for usein mains testing in the USA.
- APPLICATIONS:
Voltage indicator with safety handguard to avoid unintentional contact with live conductors
Insulated for safe use
Fully approved to IEC 61010-1, CATIII 1000vAC and CE
- Voltage Range: 110 ~ 1000v AC
- Sensitivity: Indicator will illuminate at 4mm distance of a 2.5mm conductor carrying 110v
- Response Time: Immediate
- Intrinsically Safe: Yes
- Power Requirements: 2 x Standard AAA alkaline batteries (supplied)
- Relative Humidity: 80% @ 30°C, 50% @ 40°C
- Operating Temperature: -20 ~ +50°C
- Overvoltage: CAT III 1000v AC
- Dimensions: 145(L) x 18(Ø) mm
- Weight: 35g (including batteries)

Price Each

Order Code	Product Code	1+	5+
WX60942	VOLTSTICK-110V	Black	£15.55 POA

Flir VP52 Voltage Detector Pen



FLIR
SYSTEMS

NEW

- VP50 Non-Contact Voltage (NCV) Detector + Flashlight
- CAT IV-rated NCV Detector is designed to reliably detect voltages on the latest tamperproof outlets and electrical systems installed.
- Safe CAT IV-1000V rating and toolbox tough with rubber reinforced case and buttons, and a low-profile detection tip
- Vibration and red LED alarms alert users to the presence of voltage in noisy areas
- Versatile High/Low sensitivity modes detect voltage on industrial equipment and low-voltage installations
- Powerful LED worklight always at the ready to illuminate poorly lit locations
- Inspection light at the probe tip facilitates testing in dark areas
- Long run time capable with power saving Low Battery Indication and Auto Power Off
- Rugged double molded design - 3m drop tested and IP67 ensures your meter will last
- Limited Lifetime Warranty - 10 years + warranty restarts for 10yrs if FLIR ends production in this period.
- Voltage Ranges: 90 to 1000V, 24 to 1000V
- Category Rating: CAT IV-1000V
- Frequency Range: 45 - 65Hz
- Built-in torch
- Vibrating indication
- On/Off Switch
- Includes 2 AAA batteries, user manual and limited lifetime warranty

Price Each

Order Code	Product Code	Description	1+
WX63834	VP52	Voltage Detector Pen	£20.00

GT-16 Adjustable Non-Contact Voltage Detector



GREENLEE
ELECTRICAL

- With both a visual and audible signal, the GT-16 can be used for detecting voltage in outlets, lighting fixtures, thermostats, and circuit breakers
- Additionally, the GT-16 is useful for locating breaks in wires and cables

- Changing the GT-16 product sensitivity is as easy as using the thumb dial control on the housing
- Fast, easy, non-contact voltage detection
- Voltage Detection AC 5 – 1000 V
- Frequency 50 – 100 Hz
- Bright LED and audible alarm if voltage is present
- ON/OFF switch for longer battery life
- Comfort grip to ease fatigue
- Convenient pen size fits into pocket or tool pouch
- Easy to replace batteries
- Measurement category CAT IV, 1000 V
- Lifetime limited Warranty
- U.S. Patent D500.799

Price Each

Order Code	Product Code	Description	1+	5+
WX45626	52033580	GT-16	£25.61	POA

Volt Stick EX230 & EX110 ATEX Approved



- Locates breaks in cables
- The red indicator in the tip will illuminate on detection of AC voltage simply by applying the tip close to any connection point, or moving it along any insulated cable
- Detects blown fuses inside plugs or fuse holders
- Distinguishes between live and neutral wires in both single and three-phase supplies
- Identifies voltage-carrying cables in junction boxes
- Identifies faulty in-line switches
- Locates defective in-series light bulbs
- Intrinsically safe: EEx IBICT4 Nemko 03ATEX1456 Nemko 0470 IECEx NEM07.0001
- Voltage range: 230 ~ 1000v AC for 230V Version
- Voltage range: 110 ~ 1000v AC for 230V Version
- Indicator will illuminate at 4mm distance of a 2.5mm conductor carrying 230v or 110v
- 2 x Standard AAA alkaline batteries (supplied)
- CAT III 1000v AC
- Operating temperature: -20 ~ +50° C for 230V version
- Operating temperature: -20 ~ +40° C for 110V version
- 110V Version has a flat tip

Price Each

Order Code	Product Code	Description	1+	5+
WX53565	VOLTSTICK-EX230	EX rated 230V	£38.53	POA
WX60943	VOLTSTICK-EX110	EX rated 110V	£38.53	POA

Magnetic Stick



- Powerful red light in the tip to indicate presence of a magnetic field
- Easy to use
- The test lamp responds to all kinds of magnetic fields, from alternating current to direct current and permanent magnets
- Test relays with coils and electrically controlled solenoid valves in all types of vehicles and machines
- Test solenoid valves when servicing oil burners
- ATEX approved version available upon request
- Non metallic contact method
- Useful for pneumatic and hydraulic control equipment and other areas where Solenoid Valves are used

Price Each

Order Code	Product Code	Description	1+	8+
WX30360	MT702		£19.43	POA

Magnet Stick EX – ATEX Magnetic Field Indicator



- Magnet Stick EX – ATEX Magnetic Field Indicator
- The ATEX-Approved version of the Magnet Stick for use in hazardous areas such as chemical plants, oil refineries, offshore rigs and explosive environments. (For features see standard Magnet Stick above)
- The Magnet Stick provides safe and simple checking for the presence of magnetism.
- Upon testing and without metallic contact, the lamp lights immediately where there is a magnetic field (e.g. an activated coil in a solenoid valve). Equipment can be tested without having to switch it off and magnetic coils can often be tested through their protective cover, saving hours of dismantling time. The Magnet Stick responds to all kinds of magnetic fields from alternating or direct current, to permanent magnets. A powerful red light in the tip indicates presence of a magnetic field.

- APPLICATIONS:
Testing operating solenoid valves in pneumatic and hydraulic control equipment
Testing relays with coils and electrically-controlled solenoid valves in all types of vehicles and machines
Testing solenoid valves when servicing oil burners
Fully approved to IECEx 61010-1, CATIII 1000vAC and CE
- Sensitivity: 300 Gauss, (0,3 mT)
- Response Time: Immediate
- Batteries: 2 x 1,5v AAA (supplied)
- Relative Humidity: 80% @ 30°C, 50% @ 40°C
- Operating Temperature: -20 ~ +50°C
- Overvoltage: CAT III 1000v AC
- Dimensions: 145(L) x 18(Ø) mm
- Weight: 35g (including batteries)

Price Each

Order Code	Product Code	Description	1+	8+
WX60944	MAGNETSTICK-EX	ATEX	£30.90	POA

Volt Stick Sound



- Added 'Beeper' feature; a detection buzzer for even greater clarification
- Also ideal for 'detection round corners', in bright daylight and in awkward out of sight areas. High visibility green tube for ease of identification if dropped or hidden in the toolbox
- Locates breaks in cables; the red indicator in the tip will illuminate on detection of AC voltage simply by applying the tip close to any connection point, or moving it along any insulated cable.
- Detects blown fuses inside plugs or fuse holders
- Distinguishes between live and neutral wires in both single and three-phase supplies
- Identifies voltage-carrying cables in junction boxes
- Identifies faulty in-line switches
- Locates defective in-series light bulbs
- Voltage range 220 ~ 230v AC
- Sensitivity functions @ 4mm distance from 2.5mm² conductor carrying 220v AC
- Power requirements 2 x AAA (LR03) batteries
- Operating temperature -10° ~ +50°C
- CAT III 1000v AC

Price Each

Order Code	Product Code	Description	1+	5+
WX53566	VOLTSTICK-SOUND		£17.49	POA

Volt Stick PRO230



- The red indicator in the tip will illuminate on detection of AC voltage simply by applying the tip close to any connection point, or moving it along any insulated cable
- The PRO230 features a unique 'shielded' fork tip for highly selective and accurate testing for presence of AC voltage in specific cables or wires

- Ideal for professional, close proximity testing and installation work
- Live cables can easily be detected in equipment cabinets, fuse boxes, etc
- Cables and connections can easily be checked in low voltage equipment too
- Extremely safe when measuring in junction boxes
- With the supplied field strength amplifier, anti-tamper, earthed outlets can be checked
- Fully insulated for safe use
- Voltage range 230v AC
- Sensitivity Functions upon contact with cable carrying 220v AC
- Power Requirements 2 x Standard AAA alkaline batteries (supplied)
- Operating Temperature -10 ~ +50°C
- CAT III 1000v AC

Price Each

Order Code	Product Code	Description	1+	5+
WX53567	VOLTSTICK-PRO230		£29.15	POA

Volt Stick PRO12 – Voltage Indicator



- 12v Instant Voltage Tester with unique forked tip. See features above for the PRO230
- Voltage Range: 12 ~ 1000v AC
- Sensitivity: Functions upon contact with cable carrying 12v AC
- APPLICATIONS:
Unique forked tip (patented for) gives unsurpassed selectivity and reduces the risk of spurious indications
Live cables can easily be detected in equipment cabinets, fuse boxes, etc
Extremely safe when measuring in junction boxes
Powerful red light in the tip to indicate voltage
Fully insulated for safe use
Fully approved to IEC 61010-1, CATIII 1000vAC and CE
Includes Adaptor for larger cable testing
- Voltage Range: 12v ~ 600v AC
- Sensitivity: Functions upon contact with cable carrying 12v AC
- Response Time: Immediate
- Power Requirements: 2 x AAA (LR03) batteries (supplied)
- Relative Humidity: 80% @ 30°C, 50% @ 40°C
- Operating Temperature: -10° ~ +50°C
- Overvoltage: CAT III 1000v AC
- Dimensions: 145(L) x 18(Ø) mm
- Weight: 40g (including batteries)

Price Each

Order Code	Product Code	Description	1+	5+
WX60945	VOLTSTICK-PRO12		£29.15	POA

Volt Stick LV50 IECEx & ATEX Approved



- The red indicator in the tip will illuminate on detection of AC voltage simply by applying the tip close to any connection point, or moving it along any insulated cable
- This high sensitivity version (testing down to 50v) is also *intrinsically safe*, making it an essential 'life-saver' testing tool for utilities engineers as well as for use in hazardous areas such as chemical plants, oil refineries, off shore rigs and explosive environments
- Used as a safety device to make sure metallic surfaces, pipework and cables are safe from potentially lethal voltages
- IECEx and ATEX approved voltage indicator for use in explosive environments
- Voltage indicator with safety handguard to avoid unintentional contact with live conductors
- Voltage range 50 ~ 1000v AC
- Insulated for safe use
- Intrinsically safe: EEx ib IIC T4 Nemko 03 ATEX 1456 Nemko 0470 IECEx NEM07.0001
- Sensitivity indicator will illuminate at 4mm distance of a 2.5mm conductor carrying 50v
- Power Requirements 2 x Standard AAA alkaline batteries
- Operating Temp -20 ~ +40° C
- Overvoltage CAT III 1000v AC

Price Each

Order Code	Product Code	Description	1+	5+
WX53568	VOLTSTICK-LV50		£38.53	POA

VSPU1 Volt Stick Proving Unit



cie-group

- The new VSPU1 has been specifically developed to provide confident functionality testing of the Volt Stick 230v product range (Volt Stick 230V, 230B, SOUND and LV50 models)
- This self-powered Proving Unit internally generates a 220 ~ 240v electrical field when the tip of a Volt Stick is inserted into the Unit's test portal
- Where regular checking of test instrument functionality is a requirement (such as Health & Safety regulations, tools & equipment management, etc), or simply for user confidence; the Volt Stick Proving Unit is a simple, effective, built-for-purpose solution
- Sealed, battery-powered unit
- Provides easy storage for a single Volt Stick unit

Price Each

Order Code	Product Code	1+	3+
WX53569	VOLTSTICK-VSPU1	£125.35	POA

VT2 Non-Contact Voltage Indicator



MARTINDALE
ELECTRIC

- The Martindale VT2 is a non-contact voltage detector for detection of AC voltages in walls, sockets, cables, circuit breakers and more
- With a detection range of 200V - 1000V, this is a handy tool for any electrician, fitting comfortably into your pocket with the aid of a clip.
- The VT2 is simple to use, and features a red light in the tip which illuminates when AC voltage is detected.
- Dimensions are 170mm in length, 19mm in diameter

Price Each

Order Code	Product Code	1+	3+
WX60946	VT2	£15.95	POA

VT3 Non-Contact Voltage and Magnetic Indicator



MARTINDALE
ELECTRIC

- The VT3 is a non-contact voltage and magnetic indicator
- It can check for the presence of an AC voltage in , wall sockets, cables, circuit breakers and many other places 200 - 1000V AC
- It is safe, easy to use and comfortably fits into a pocket
- A red light in the tip illuminates when AC volts are detected
- In addition to the voltage detection capabilities of the VT2, above, a green light illuminates to show the presence of a magnetic field >10mT
- Dimensions: 170mm in length and approx 19mm in diameter

Price Each

Order Code	Product Code	1+	3+
WX60947	VT3	£25.75	POA

Martindale VT4 Dual Sensitivity Non-contact Voltage Tester with Torch



MARTINDALE
ELECTRIC

NEW

- This IP64 rated non-contact voltage tester has two sensitivity ranges for accurately detecting the presence of AC voltages
- The first will detect voltages between 50V and 1000V and the second will indicate voltages between 12V and 50V
- The VT4 indicates voltage by illuminating the tip section with a red LED and a buzzer
- The pen-shaped design with clip makes it ideal for carrying in a pocket or tool belt when working at height or in difficult to access locations
- There is also a useful LED torch which illuminates the area in front of the tip

Price Each

Order Code	Product Code	1+	3+
WX63835	VT4	£24.00	POA

Martindale VT7 Single Pole Voltage Indicator



MARTINDALE
ELECTRIC

NEW

- A single pole contact voltage indicator which detects AC voltages of 50V-600V with bright LED indication
- This ergonomically designed voltage tester has a self-test function and is IP54 rated, for indoor and outdoor use
- The tester is of durable construction making it suitable for both industrial and domestic applications
- This unit can be used when wearing protective gloves and gauntlets
- Potentially unsafe direct contact with a finger is not required
- The probe is GS38 compliant

Price Each

Order Code	Product Code	1+	3+
WX63836	VT7	£21.97	POA

VT12 Voltage Tester



MARTINDALE
ELECTRIC

- The VT12 is constructed in accordance with the latest safety standards (EN61243-3, EN61010) and guarantees safe and reliable measurements and testing
- This robust tester has automatic AC/DC detection up to 690V and continuity testing with optical and acoustic indication up to 200k Ohms
- It is ergonomically designed and durable enough for both industrial and domestic uses and is rated to CAT III 690V
- Voltage Range: 12 - 690V AC/DC
- LED resolution: +/-12, 24, 50, 120, 230, 400, 690V
- AC/DC Voltage Detection: automatic
- Range detection: automatic
- Probe caps for GS38 compliance
- Frequency Range: DC, 0 - 65Hz

- Continuity Test: Optical/acoustical
- Continuity Range: 0-200 kΩ
- Weight: approx. 130g
- Dimension: approx. 205 x67 x27mm

Price Each

Order Code	Product Code	1+	3+
WX60948	VT12	£34.50	POA

Martindale VT25 and VT28 Voltage Indicators + Proving Unit Kits



MARTINDALE
ELECTRIC

NEW

- The VT25 is a compact voltage tester which measures continuity, phase rotation and voltages between 12V and 690V
- This contact tester complies with the latest version of BS EN61243-3 2010 and is supplied with removable probe caps for GS38 compliance
- It is ergonomically designed and of durable construction for both industrial and domestic applications
- The 1.2m cable is double insulated with a black outer and contrasting inner core to give visual warning of damage to the cable.
- The VT25 has automatic AC/DC voltage detection up to 690V and continuity testing with optical and acoustic indication up to 500k Ohms
- The voltage, continuity and phase rotation functions have bright LED indication and there is also a useful LED torch for working in low light environments.
- Adds phase rotation and torch
- Also available as VT25/PD with a VT25 and a PD690 (Proving Unit) in a carry case (TC70)
- The VT28 shares the same useful functions as the VT25 but has the additional benefit of an LCD display
- All voltage, continuity and phase rotation indications have the same bright LED indication but the VT28 also displays the measured voltage reading on the 25mm x 15mm LCD display
- Adds 4 digit LCD display
- Also available as VT28/PD with a VT28 and a PD690 (Proving Unit) in a carry case (TC70)

Price Each

Order Code	Product Code	1+	3+
WX63837	VT25 LED V Indicator	£49.00	POA
WX63838	VT28 LCD V Indicator	£69.00	POA
WX63839	VT25/PD LED Test & Proving Unit	£146.00	POA
WX63840	VT28/PD LCD Test & Proving Unit	£161.50	POA

Martindale VIPD138 Voltage Indicator VI13800 (unfused) & Proving Device



33

Test & Measurement

- The Martindale VIPD138 contains the VI-13800 voltage indicator and the PD440 proving device, enabling you to comply with health and safety recommendations for safe working
- VI-13800 Voltage Indicator - Industry Standard voltage indicator, Heavy duty double insulated leads, fully compliant with BS EN61243-3:2010 compliant, Polarity Indication
- PD440V Proving Device - Designed to prove voltage indicators for use on single & 3 phase supplies
- These 2 units all come together in a unique case which allows you to leave the Proving Unit in the case and allow access via 2 holes in the clear front to insert your Voltage Indicators
- The Voltage Indicators are housed in the reverse of the case keeping both items together in one place

Price Each

Order Code	Product Code	1+	3+
WX60949	VIPD138	£139.50	POA

Electrical Test Equipment

Fluke 1507 and 1503 Insulation Testers



FLUKE



- The Fluke 1507 and 1503 Insulation Testers are compact, rugged, reliable, and easy to use
- With their multiple test voltages, they are ideal for many troubleshooting, commissioning, and preventative maintenance applications
- Additional features on the tools save both time and money when performing tests
- They offer great performance for an exceptional value!
- Insulation test range: (1507: 0.01MO to 10GO), (1503: 0.1MO to 2000MO)
- Insulation test voltages: (1507: 50V, 100V, 250V, 500V, 1000V), (1503: 500V, 1000V) for many applications
- Automatic calculation of Polarization Index and Dielectric Absorption Ratio saves both time and money (1507 only)
- Compare (Pass/Fail) function makes repetitive tests simple and easy (1507 only)
- Remote test probe makes repetitive or hard-to-reach testing easier
- Live circuit detection prevents insulation test if voltage >30V is detected for added user protection
- Auto-discharge of capacitive voltage for added user protection
- AC/DC voltage: 0.1V to 600V
- 200mA Continuity
- Resistance : 0.01Ohm to 20.0KOhm
- Auto power off to save battery power
- Large, backlit display for easy readability
- CAT III - 1000V, CAT IV - 600V over voltage category rating for added user protection
- Included accessories: Remote probe, test leads and probes, alligator clips (Image shown is the 1507 model)

Price Each

Order Code	Product Code	1+	4+
WX38629	1507	£380.00	POA
WX38628	1503	£278.00	POA

Insulation Resistance Testers 1555/1550C



FLUKE

Digital insulation testing up to 10kV

The new 1555 and redesigned Fluke 1550C insulation resistance testers, offer users digital insulation testing up to 10kV for testing a wide range of high voltage equipment including switchgear, motors, generators and cables.

With these new insulation testers, customers can now conduct the entire range of test voltages specified in IEEE 43-2000 with a best in class, 3 year warranty and CAT IV 600 V safety rating. With measurement storage and PC interface, the 1555 and 1550C are perfect tools for preventive or predictive maintenance programs designed to identify potential equipment failures before they occur.

- Features and Benefits:
- Test voltages up to 10 kV provides solutions for all applications
- CAT III 1000 V, CAT IV 600 V safety rating
- Voltage breakdown detection alerts the user that voltage is present and gives the voltage reading up to 600 V ac or dc for increased user safety
- Selectable test voltages in 50 V steps from 250 to 1000 V, and 100 V steps above 1000 V
- Measurements can be stored in up to 99 memory locations, with each location assigned a unique, user defined, label for easy recall
- Long battery life gives the user over 500 tests between charges for the 1555 and 1000 tests for the 1550C
- Automatic calculation of Dielectric Absorption (DAR) and Polarization Index (PI) with no additional setup
- Guard system eliminates the effect of surface leakage current on high-resistance measurements
- Large digital/analog LCD for easy viewing
- Capacitance and leakage current measurement
- Ramp function for breakdown testing
- Resistance measurements up to 2TΩ
- Timer settings up to 99 minutes for timed tests
- 3-year warranty
- Included with the Unit
 - Test cables with alligator clips (red, black, green)
 - Infrared adapter with interface cable
 - FlukeView Forms basic CD-ROM
 - AC power cord
 - Soft carrying case
 - Users manual on CD-ROM
 - Quick Reference card
 - English manual
 - USB-IR cable installation guide
 - FlukeView Forms installation guide
 - Kit includes: IP67 hard case instead of soft case, heavy duty alligator clips and certificate of calibration

Price Each

Order Code	Product Code	1+
WX53597	FLUKE-1555	£2,883.00
WX53598	FLUKE-1550C	£2,394.00

Martindale ET4000/ET450 Multifunction Tester



- The new ET4000 and ET4500 multifunction testers carry out all the tests needed to verify the safety of electrical installations in domestic, commercial and industrial wiring installations in accordance with the very latest amendment 3 to the BS7671 17th Edition Wiring Regulations 2015 by having the latest amendment 3 fuse tables for Zs values built-in together with red and green LED indicators for instant pass/fail confirmation
- The new testers Everything about the new ET Series has been designed to save time and make testing easier, from the capability to display all results from an RCD autotest on one screen to the inclusion of useful Help menus at the press of a button
- Even the soft carry case has been designed to enable testing without having to unpack and repack the instrument every time
- On connection the testers carry out an automatic polarity and wiring check identifying potentially dangerous wiring faults in advance of any testing
- Fast, reliable high current and non-trip loop testing comes as standard together with a high level of input protection and a CAT IV safety rating
- Both models include phase sequence indication and TRMS voltage measurement to cover every job and ensure voltage levels are really within the new Cmin limits defined in amendment 3

Features ET4000 / ET4500

- Red and green LED indicators for instant pass/fail results
- Graphical display for multiple readings and help
- Built-in new third amendment Zs loop impedance tables and help screens
- Automatic polarity and wiring check on connection
- Test and Go soft carry case, no need to unpack and repack
- Auto RCD and ramp test with all results on one screen: 10/30/100/300/500/1000mA (AC, A, F, S)
- TRMS voltage measurements, Frequency and phase rotation on all models
- Fast, reliable high current and non-trip loop testing
- Insulation Resistance at 50/100/250/500/1000V
- Continuity Testing at 200mA and 8.5mA
- Loop Resistance and PFC dual display
- Slimline remote start probe
- 300V CAT IV, 600V CAT III safety rating
- Supplied complete with: TL36 MFT 3 lead setRBG, TL207 MFT mains lead set RBG, TL180 Remote start probe, Soft carry case and strap, Quick start plus full user guide on CD, Calibration verification certificate, Alkaline batteries

Additional features ET4500

- Low discharge rechargeable batteries and mains charger
- On-board storage and download for documenting results ET-Link software and USB Cable
- Three wire earth resistance testing (Requires ERKIT earth testing accessories)

Price Per Roll 100

Order Code	Product Code	1+	3+
WX63841	ET4000	£935.00	POA
WX63842	ET4500	£1,125.00	POA

Multi Function Testers 1652 & 1653



FLUKE



- Learn in minutes, test in seconds
- Highly portable easy to use Multi-function Testers providing the primary electrical test functions as required by BS7671 (IEE wiring regulations)
- Both models feature the following measurement functions:
- Voltage & frequency, wiring polarity, insulation resistance, continuity, loop and line resistance, PFC/PSC short circuit current, RCD tripping time and current, Auto RCD test sequence, test DC sensitive RCD's
- The 1653 also includes phase sequence indicator, earth test and data download.
- Easy operation - Simple user interface via rotary knob
- Measures loop impedance without tripping RCD's
- Slim test probe incorporating test button
- Rugged - withstands 1 metre drop test, compact and lightweight

		Price Each	
Order Code	Product Code	1+	4+
WX30973 ‡	1652	£966.00	POA
WX30974 ‡	1653B	£1,159.00	POA

‡ Special delivery applies. Please call for details

Flir IM75 Insulation Tester & Multimeter



FLIR
SYSTEMS

NEW

- IM75 is both an advanced multifunction digital multimeter and premier handheld insulation tester for installation, troubleshooting and maintenance professionals
- Includes several specialty insulation modes including: Polarization Index, Dielectric Absorption and Earth Bond Resistance
- Insulation tests can be performed instantly, continuously and over a timed duration for in-depth assessment
- Advanced Insulation Modes: Insulation Resistance up to 20 GΩ, PI, DAR, Earth Bond Resistance
- Multiple ranges of resistance insulation test levels available via rotary switch: 50V, 100V, 250V, 500V, 1000V
- Multi-color LED indicator with Compare Mode makes pass/fail determinations easy and visible
- True RMS DMM measurements features reliable performance and 1000V range
- VFD Mode for superior accuracy on variable controlled drive equipment
- Remote viewing of real time readings on Android™ and iOS™ smartphones and tablets with METERLINK® connectivity and free FLIR Tools Mobile app
- Transmit readings to METERLINK-enabled FLIR thermal imaging cameras to document and analyze thermal changes during insulation measurements
- Extremely bright LED worklights in a flood pattern to illuminate test areas and targets
- Durable double-molded construction (IP54, 2m Drop Test)
- Limited Lifetime Warranty - 10 years + warranty restarts for 10yrs if FLIR ends production in this period
- Ready for work with plenty of accessories: silicone CAT IV test leads with screw on silicone insulated alligator clips, and magnetic hanging strap
- Includes: TA81 CAT IV Silicone Insulated Test Probes with screw on insulated alligator clips, TA50 Magnetic hanging strap, 6 x AAA batteries, User manual/CD

Price Each			
Order Code	Product Code	Description	1+
WX63843	IM75	Insulation Tester/ Multimeter	£479.00

CAT IV Insulation Tester/DMM with Wireless PC Interface



EXTECH
INSTRUMENTS
A FLIR COMPANY

- Wireless USB interface transmits measurement data to a PC
- Backlit super large triple display
- 125V, 250V, 500V, and 1000V test voltages
- Insulation Resistance from 0.001MΩ to 4000MΩ
- Auto discharge of capacitive voltage
- Lock Power On Function for hands-free operation
- Data Hold, Min/Max, Relative mode, Auto power off
- Complete with USB receiver, Windows® software, test leads & alligator clips, bead wire temperature probe, carrying case and batteries

		Price Each	
Order Code	Product Code	1+	5+
WX60932	MG302	£278.59	POA

Buzz-it check plug with sounder



MARTINDALE
ELECTRIC

- The Martindale Buzz-It features an audible indication of the correct wiring status of sockets, making it ideal to use in awkward areas
- Three bright, long-life LEDs also illuminate to show the wiring is correct, therefore if there is no sound and any LEDs are unlit, you know there is a fault
- Faults are easily identified by the pattern of the lit LEDs, detects 28 faults
- With the audible indication, the Buzz-It can also be used as a basic fuse finder, when the correct fuse is pulled the buzzer stops.
- Note: Like all other standard socket testers, the Martindale CP501 will not detect common earth and neutral or earth neutral reversal
- Mains Supply: 200 - 250V (30-70Hz)
- Power Consumption: <1.5W
- Temperature Range: -10°C to 40°C, 60% RH (max)
- Earth Leakage: <5mA
- Overvoltage: CAT II, 300V
- Housing: Flame retardant ABS
- Dimensions: 65 x 65 x 47mm

		Price Each	
Order Code	Product Code	1+	3+
WX60950	BZ101	£19.96	POA

EZ650 E-Ze Check™ Xtra Professional Kit



MARTINDALE
ELECTRIC

- The E-Ze Check™ Pro Kit is supplied in a custom designed carry case for convenience
- It has an IEC socket with an interchangeable 3 pin adaptor and TL88 3-way fused leads with croc clips, allowing testing at light fittings, distribution boards and terminals
- The housing allows connection either to an adaptor with a mains plug or one with 3-way flying leads for use on lighting circuits or on bare wires
- Like all other indicators this unit cannot detect common earth and neutral or earth neutral reversal.
- **This unit is an indicator only and is not designed to provide readings for completing certificates.**
- Nominal supply: 230V, 50 Hz
- Earth loop impedance span: 0-1.7Ω, 1.7 to 5Ω, 5 to 10Ω, 10 to 100Ω, 100 to 200Ω, 200 to 500Ω
- Earth loop threshold accuracy: ±(10% + 0.3Ω)
- Voltage low indication: <195V
- Voltage high indication: >270V
- Open earth indication: >500Ω
- Power consumption: <1.6 W
- Overvoltage: CAT II /300 V
- Dimensions: 65 x 65 x 50mm
- Weight: 64g approx.
- Includes: mains lead (EX332 13A) & 3-way fused leads (TL88), Custom designed carry case

		Price Each	
Order Code	Product Code	1+	3+
WX60951	EZ650	£99.60	POA

Martindale 3 Phase Industrial Socket Testers



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Test & Measurement

MARTINDALE
ELECTRIC

NEW

- The PC104 range is a 3-phase socket tester for checking supply faults and incorrect wiring of CEE 4 pin, socket outlets (6 wiring condition checks)
- The PC105 range is a 3-phase socket tester for checking supply faults and incorrect wiring of CEE 5 pin, socket outlets (7 wiring condition checks)
- It will check for phase presence, phase sequence and PE presence (PC105 range also checks for neutral presence)
- 3 Phase 380V to 415V AC (Phase to Phase) Industrial Socket Testers 16A, 32A, 63A
- Phase Sequence Indication
- Neutral/Earth check
- Bright LED indication
- Input frequency: 50Hz
- Input current <20mA
- Power from circuit under test
- Complies with BS EN 61010-1
- Size: 131 x 94 x 54mm
- Weight 292g
- 2 year warranty

Price Each

Order Code	Product Code		1+	3+
WX63844	PC104/16	4 pin 16A	£68.70	POA
WX63845	PC104/32	4 pin 32A	£73.60	POA
WX63846	PC104/63	4 pin 63A	£122.40	POA
WX63847	PC105/16	5 pin 16A	£72.98	POA
WX63848	PC105/32	5 pin 32A	£78.23	POA
WX63849	PC105/63	5 pin 63A	£126.85	POA

IN2101 500V Low Cost Insulation Tester



MARTINDALE
ELECTRIC

- All units have a large backlit digital display with analogue bargraph
- The 2101 500V insulation tester is amazing value for money
- Features include continuity buzzer, backlight, auto hold
- The output test voltage is automatically displayed during testing
- This guarantees a minimum test voltage of 500V is being applied during the test
- Automatic zero adjust removes the resistance of the leads and the test button can be set to either latching, to give a permanent output or 'press to test'
- Insulation: 0.200M Ω - 1000M Ω at 500V in 4 ranges with automatic discharge
- Accuracy: $\pm$ (3% rdgs + 5 digits)
- Continuity: Range: 0.1 Ω - 40 Ω Resolution: 0.01 Ω
- Short circuit current: >200mA
- Accuracy: $\pm$ (3% rdgs + 5 digits)
- Buzzer: <30 Ω
- Resistance: 0.1 Ω - 1999k Ω
- Accuracy: $\pm$ (3% rdgs + 5 digits)
- Voltage range: 600V AC/DC
- Voltage Warning Indicator: >30V
- Accuracy: $\pm$ (3% rdgs + 5 digits)
- Backlight, Auto Hold, Auto Zero
- Protection: IP44
- Overvoltage: 600V CAT III
- Complies with: BS EN 61557 & BS 7671 (17th Edition)
- Dimensions: 90 x 210 x 54mm
- Includes: batteries, manual, carry case & test leads (TL47)

Price Each

Order Code	Product Code	1+	3+
WX60952	IN2101	£238.50	POA

IN2102 250/500/1000V Insulation Tester



MARTINDALE
ELECTRIC

- The Martindale IN2102 is a fully specified insulation tester, with 250, 500 & 1000V test ranges, and is ideal unit for both domestic and industrial installers
- The test voltage is indicated on the large backlit LCD display, which includes an analogue arc. Other features include a continuity buzzer, auto hold and an automatic zero adjust which removes the resistance of the leads
- The test button can also be set to either latching, to give a permanent output, or 'press to test'
- The IN2102 is fully compliant with all UK and International standards, including the 17th Edition, and is supplied with unfused test leads with croc clips, batteries, instruction manual and a soft carry case
- Insulation Tests
250V: 4 / 40 / 400 / 1000M Ω
500V: 4 / 40 / 400 / 4000M Ω
1000V: 4 / 40 / 400 / 5000M Ω
Range: 0.200M Ω - 5000M Ω
Short Circuit Current: <1.5mA
Automatic Discharge
Buzzer Disable Option: Yes
Accuracy: $\pm$ 3% reading, + 5 digits
Continuity
- Range: 0.1 Ω - 40 Ω
Resolution: 0.01 Ω
Short Circuit Current: >200mA
Accuracy: $\pm$ 3% reading, + 5 digits
Buzzer: <30 Ω
Resistance: 0.1 Ω - 1999k Ω
Open Voltage: 3V
Accuracy: $\pm$ 3% reading, + 5 digits
Voltage Tests
- Voltage Range: 600V AC / DC
Live Circuit Warning: >30V
Accuracy: $\pm$ 3% reading, + 5 digits
- LCD Backlit Display with Analog Arc
- Auto Hold & Auto Zero
- APO Disable Option
- IP44 Protection
- CAT III 600V Protection
- Dimensions 90 x 120 x 54mm

Price Each

Order Code	Product Code	1+	3+
WX60953	IN2102	£249.00	POA

IN2103 250/500/1000V Insulation & Continuity Tester with PI & DAR



MARTINDALE
ELECTRIC

- The Martindale IN2103 is the top of the range insulation tester, and ideal for industrial use, as well as by users involved with the repair and reconditioning of motors
- Two key features of this professional tester include polarisation index (PI) and dielectric absorption ratio measurements (DAR)
- These sophisticated tests, introduced by Martindale for the first time in a handheld instrument, allow for more accurate measurement of insulation values.
- In addition the IN2103 displays the test voltage on the large backlit LCD display, features an analogue arc, continuity buzzer and continuity buzzer, auto hold and an automatic zero adjust which removes the resistance of the leads
- The test button can also be set to either latching, to give a permanent output, or 'press to test'
- The IN2103 is fully compliant with all UK and International standards, including the 17th Edition, and is supplied with unfused test leads with croc clips, batteries, instruction manual and a soft carry case.
- Insulation Tests
250V: 4 / 40 / 400 / 1000M Ω
500V: 4 / 40 / 400 / 4000M Ω
1000V: 4 / 40 / 400 / 5000M Ω
Range: 0.200M Ω - 5000M Ω
Short Circuit Current: <1.5mA
Automatic Discharge
Buzzer Disable Option: Yes
Accuracy: $\pm$ 3% reading, + 5 digits
Continuity
- Range: 0.1 Ω - 40 Ω
Resolution: 0.01 Ω
Short Circuit Current: >200mA
Accuracy: $\pm$ 3% reading, + 5 digits
Buzzer: <30 Ω
Resistance: 0.1 Ω - 1999k Ω
Open Voltage: 3V
Accuracy: $\pm$ 3% reading, + 5 digits
Voltage Tests
- Voltage Range: 600V AC / DC
Live Circuit Warning: >30V
Accuracy: $\pm$ 3% reading, + 5 digits
- User Settable Limits
Pass / Fail Indicators
Polarisation Index (PI)
Dielectric Absorption Ratio (DAR)
Memory Storage
LCD Backlit Display with Analog Arc
Auto Hold & Auto Zero
APO Disable Option
IP44 Protection
CAT III 600V Protection
- Dimensions 90 x 120 x 54mm

Price Each

Order Code	Product Code	1+	3+
WX60954	IN2103	£259.00	POA

LOKKIT1 Lock Off Kit



MARTINDALE
ELECTRIC

- Electrical safety is paramount when performing 17th Edition and Part P installation testing
- Every year people suffer electric shock and burn injuries, some of which are fatal
- Implementing the correct safe isolation procedures will ensure the safety of the electrician and avoid these accidents.
- The Martindale universal lock off kit is compatible with most circuit breakers
- It is supplied with a padlock that has its own unique key, and a safety hasp that enables multiple users to lock off with space for up to 6 padlocks.
- The full 14 piece kit includes:
1 x Padlock with unique key

- 1 x Steel safety hasp, with space for up to 6 padlocks
- 1 x Green mini MCB lock
- 1 x Yellow mini MCB lock
- 1 x Blue medium MCB lock
- 1 x Large red MCB lock
- 1 x Red fuse lockout breaker
- 5 x Danger tags which can be overwritten
- 1 x Black marker for writing on Danger tags
- 1 x TC55 soft carry case

Price Each

Order Code	Product Code	1+	3+
WX60955	LOKIT1	£69.95	POA

Martindale MARVIPDLOK138 Voltage Indicator (unfused), Proving Device & Lock



MARTINDALE
ELECTRIC

NEW

- The complete solution for safe isolation, the Martindale VIPD Lock Out Kit contains the VI13700/2 voltage indicator, PD440 proving device, along with a complete lock out kit, supplied with soft carry cases
- Nothing is more dangerous than trusting a defective voltage indicator to test for a dead circuit.
- Safe electrical work requires the use of a voltage indicator that has been proved with a proving unit before and after use.
- The Martindale VIPD contains the VI13700/2 voltage indicator and the PD440 proving device, enabling you to comply with health and safety recommendations for safe working.
- The 16 piece kit contains the following items:
 - 1 x PD440 proving device
 - 1 x VI13700 voltage indicator
 - 1 x Padlock with unique key
 - 1 x Steel safety hasp, with space for up to 6 padlocks
 - 1 x Green mini MCB lock
 - 1 x Yellow mini MCB lock
 - 1 x Blue medium MCB lock
 - 1 x Large red MCB lock
 - 1 x Red fuse lockout breaker
 - 5 x Danger tags which can be overwritten
 - 1 x Black marker for writing on Danger tags
 - 1 x TC55 soft carry case

Price Each

Order Code	Product Code	1+	3+
WX60956	VIPDLOK138	£198.95	POA

FD650 Digital Fuse Finder Kit



MARTINDALE
ELECTRIC

- The Martindale FD650 digital fuse finder kit allows for tracing of fuses through mains sockets, light fittings and points in a circuit where there is no power socket available
- The transmitter is supplied with a mains plug and a set of two wire test leads, emitting a signal for the receiver to pick up
- The microprocessor controlled multi-level sensitivity makes identification of fuses and breakers much easier
- The Elite fuse finder also features a non-contact voltage indicator.
- The FD650 fuse finder is supplied in a hard carry case with a transmitter, mains plug, two wire test leads, receiver, batteries and instruction manual.
- Transmitter
 - Transmission Pulse Width approx 1.7µs width
 - Transmission Pulse Amplitude 20A max
 - Frequency Range 50 - 60Hz
- Temperature Range: -10°C to 40°C at max 60% RH
- Earth Leakage: Nil
- Mains Supply: 230V, 30 - 70Hz
- Power Consumption: 1W approx
- Overvoltage: CAT III 300V
- Protection Class: IP20
- Dimensions: 65 x 65 x 46mm approx
- Weight: 60g
- Receiver
 - Tracing Depth 0 - 10cm, for fuse assignment (depending on local conditions)
 - Sensitivity Control Via digital stepping
- Temperature Range: -10°C to 40°C at max 60% RH
- Protection Class: IP20
- Power Supply: 9V Battery (PP3 / MN1604) alkaline only
- Dimensions: 160 x 55 x 30mm
- Weight: 135g approx
- Units are EMC compliant

Price Each

Order Code	Product Code	1+	3+
WX60957	FD650	£114.00	POA

Electrical Detector Discharge Pen



SKF

- The TKED 1 is capable of detecting sparks generated in electrical motor bearings whilst running
- Unique remote solution
- Capable of detecting electrical discharges on a time base of 10sec, 30 sec or indefinite
- No special training required as the instrument is operated with only two buttons
- LED backlit screen, allows for use in dark environments
- IP 55 can be used in most industrial environments
- Operational and storage temperature -120 to 70 deg C
- 255 x 210 x 60mm

Price Each

Order Code	Product Code	1+	4+
WX53634	TKED1	Electrical Detector	£428.88 POA

TEK500 Microwave Leakage Detector Kit



MARTINDALE
ELECTRIC

- The Martindale TEK500 is a straightforward microwave leakage detector, which gives a simple LED indication as to leakage levels and is suitable for use with both commercial and domestic microwave ovens
- The unit is designed to comply with national standards on permitted exposure levels.
- A self test feature simulates a real microwave input, in order to ensure the unit is working correctly at all times and the leakage tester will indicate at 1, 5 and 10mW/cm2, testing to BS5175.
- The test procedure for microwave ovens also includes checking that the microwave is heating correctly
- The TEK500 includes a beaker and digital thermometer in order for these tests to be carried out and to ensure your compliance with the testing requirements.
- The Martindale TEK500 microwave leakage detector kit is supplied with the leakage detector, beaker, digital thermometer, carry case & instruction manual. The manual also includes the calculations to apply when measuring the microwave output.
- Detection Frequency Range: 2450MHz +/- 25MHz
- Sensor Distance: Fixed cone on rear of unit should be in gentle contact for standard 50mm separation
- Indicators Test Position: All four LEDs should light and an audible tone will be emitted
- On Position
 - PASS: Green "sys" LED only (<1mW per cm2)
 - Green "sys" LED & yellow "1mW" LED (<5mW per cm2)
- FAIL: Red "5mW" LED (>5mW per cm2, audible tone)
- Red "10mW" LED (>10mW per cm2, audible tone)
- Supply: 9V alkaline battery, PP3 / MN1604 or equivalent
- Dimensions: 150 x 64 x 30mm
- Weight: 170g approx

Price Per Roll 100

Order Code	Product Code	1+	3+
WX60958	TEK500	£167.86	POA

Indicators

Phase Rotation Indicator



FLUKE

9040

- The Fluke 9040 is effective for measuring phase rotation in all areas where three phase supplies are used to feed motors, drives and electrical systems
- The Fluke 9040 is a rotary field indicator and can provide clear indication of the 3 phase via an LCD display and the phase rotation direction to determine correct connections

- It allows rapid determination of phase sequence and has a voltage (up to 700V) and frequency range suitable for commercial and industrial applications
- Test probes supplied with the instrument have a variable Size (HxWxD) : 124 x 61 x 27 mm
- Features:
 - 3 phase indication via LCD
 - Indication of phase rotation
 - Clear LCD display
 - No battery required (Power supply 9040: from unit under test)
- Included accessories:
 - Alligator clips - black (3)
 - Flexible test probes - black (3)

Price Each

Order Code	Product Code	1+	4+
WX38642	9040	£173.00	POA

Motor Rotation Indicator



FLUKE

- The unique Fluke 9062 provides rotary field and motor rotation indication with the benefits of contact-less detection
- Purpose made for commercial and industrial environments, the Fluke 9062 provides rapid indication of 3 phase rotation using test leads supplied or can be used to determine motor rotation on synchronous and asynchronous 3 phase motors
- The contact-less detection is ideal for use on motors where the shaft is not visible
- Test probes supplied with the instrument have a variable clamping range for safe contact, especially in industrial sockets
- Size (HxWxD) : 124mmx61mmx27mm
- Features:
 - 3 phase indication via LED
 - Indication of motor rotation direction
 - Contact free determination of the rotation direction of running motors
- Indication of phase rotation
- Power supply 9062: 1 x 9V battery
- Included accessories:
 - Alligator clips - black (3)
 - Flexible test probes - black (3)
 - Test leads - black (3)

Price Each

Order Code	Product Code	1+	4+
WX38643	9062	£147.00	POA

Martindale PC15250 Phase Rotation & Continuity Indicator

MARTINDALE
ELECTRIC

NEW

- Quickly and simply prove the presence of all three live phases (or identify which are faulty) and show the sequence of phase rotation when all three phases are confirmed as present
- The PC15250 gives a fast, effective, battery free method of identifying unmarked cables and ensures that 3-phase outlets and machines are wired correctly
- The retractable GS38 probe shrouds give a choice between long exposed tips, for reaching difficult to access contacts, and shorter tips for increased safety
- Electrical
 - Input voltage range: 50V to 600V AC (Phase to Phase)
 - Input frequency: 40 to 60Hz
 - Input current: < 3mA
- Environmental
 - Temperature (Operating & Storage): -10°C to 55°C
 - Humidity (Operating & Storage): 85% R.H
 - Altitude: up to 2000m
 - Pollution Degree: 2
- General
 - Power: from circuit under test
 - Fuses: 600V 0.5A 50kA HRC rated fuses (6x32mm) x 3, one in each probe
 - Weight packed: 361g approx
 - Dimensions: 116(L) x 69(W) x 25(D) mm
 - Includes: instruction
- Safety
 - Conforms to GS38 & BS EN61557-7, CAT IV 600V
 - Class II, Double Insulation
 - EMC
- Conforms to BS EN61326-2-2

Price Each

Order Code	Product Code	1+	3+
WX63850	PC15250	£109.40	POA

Martindale PSI4000 Non Contact Phase Sequence Indicator

MARTINDALE
ELECTRIC

NEW

- An unique non-contact phase rotation indicator that carries out measurements via inductive crocodile clips
- The increased safety design of this phase rotation tester allows for use on both insulated and non-insulated conductors with a buzzer and bright LED's giving clear indication of clockwise or anti-clockwise phase rotation
- There is also an Enhanced Brightness switch for clear indication in strong ambient light
- Measurement Principle: Static Induction
- Input Voltage: 150V - 1000V 3 Phase AC
- Frequency Range: 45 - 65Hz
- Operating Temperature & Humidity: -10°C to 50°C, Max 80%
- Battery Current Consumption: 15mA
- Cable Length: Approx. 800mm

- Power Source: 1.5V x 4 AA / LR6 alkaline batteries
- Auto-Off: After 5 mins of non activity
- Low Battery Warning: Power LED Flashes Below 4.6V DC Battery Voltage
- Safety Standard: EN 61010 CAT III 1000V, CAT IV 600V, EN 61326-1
- Weight: Approx. 370g (batteries included)
- Dimensions: 118x69x38mm
- The Martindale PSI4000 is supplied with 4 x AA batteries, soft carry case and manual

Price Each

Order Code	Product Code	1+	3+
WX63851	PSI4000	£187.90	POA

Sound Meters

Introduction to Sound in the Workplace

- There are legislative requirements surrounding sound in the workplace
- Employers have a legal duty to protect the hearing of their employees
- Damage to hearing from exposure to loud noise at work is preventable
- The risks can be controlled by good management
- Employers have to reduce risk of damage to employees' hearing and take specific actions where the noise exposure of their employees is likely to be at or above any of three 'action levels'.
- The Law - Recent Changes
- The Noise at Work Regulations Act 1989 came into effect on 1 January 1990 and implemented as the European Directive 86/188/EEC
- A European Directive was recently adopted which means that we must introduce new UK Noise Regulations by February 2006, now in force as The Control of Noise at Work Regulations 2005.
- Under the previous legislation, the Noise at Work Regulations 1989, the first action level was an LEP,d of 85dB(A) and the second action level was an LEP,d of 90dB(A). There was also a peak action level of 200 pascals (equivalent to 140dB(C) or (Z)) for exposures to high level noise of short duration, such as cartridge operated tools. This identifies the risks of exposure to impulsive noise as opposed to continuous noise exposure.
- The action levels have changed with the new legislation. Employers are required to take specific measures at these new levels, including carrying out noise risk assessments.

Noise At Work - Guide to Noise Exposure Levels

Noise Level Exposure Time

85dB	8 hours
88dB	4 hours
94dB	1 hour
100dB	5 minutes
115dB	47 seconds
121dB	14 seconds
130dB	1.75 seconds

Noise Level dB	Example
50-60	Normal Conversation
65-75	Loud radio
78-85	Busy street
100	Light tractors, Electric hand tools, Light garden machinery
85-120	General manufacturing industry
100-120	Heavy tractors, Steel construction, Road construction
120-130	Forestry equipment, Chainsaws, Textile industry, Paper and printing works, Heavy plant, Pneumatic drills
120-150	Airports, jet engines, motor sports

Mini Digital Sound Level Meter



- Measuring range 40~130dB
- A frequency weighting
- Fast time weighting
- Precision ½ inch electret condenser microphone
- 26mm 4 digit LCD display
- Display updates every 0.5 seconds
- Auto backlight in dark environments
- Max/min hold
- Over display for out-of-range input
- Low battery indicator
- Auto power off after 15 minutes, preserves battery life
- Can be tripod mounted
- Supplied with wind muffler & battery

Technical Specifications

Range	40 to 130dB
Resolution	0.1dB
Accuracy	±3.5dB (94dB @ 1KHz)
Frequency Range	100Hz~8KHz
Power	9V PP3 battery x 1 (ALR-61)
Dimensions	128 x 51 x 32 mm
Weight	131g

Price Each

Order Code	Product Code	1+	4+
WX43951	MSL-85A	£50.00	POA

Mini Digital Sound Level Meter



NEW

- Measuring range 30 to 130dB x 0.1dB
- 'A' frequency weighting
- Fast time response weighting
- Precision ½ inch electret condenser microphone
- 30mm LCD display with function indicators
- Display updates every 0.5 seconds
- Backlight in dark environments
- Data Hold
- Min/Max of measured values
- Auto Power Off after 15 minutes of no activity
- Low Battery indicator
- Can be tripod mounted
- 2 Year Warranty
- Supplied with wind muffler and battery
- Calibration Certificate Issued at 2 points: 94dB & 104dB at a frequency of 1KHz
- Range 30 to 130dB
- Resolution 0.1dB
- Accuracy ±1.4dB (94dB @ 1KHz)
- Frequency Range 31.5Hz~8KHz
- Power 1 x 9V PP3 Alkaline Battery (LR-61)
- Dimensions 144 x 55 x 38 mm
- Weight 90g

Price Each

Order Code	Product Code	1+
WX63852	MT-901A	Sound Level Meter £50.00
WX63853	CAL-SL	Traceable Cal Cert £70.00
WX53690 ‡	TP-1220R	Instrument Tripod £35.00

Sound Level Meter Class 2



testo

- An affordable Sound Level Meter which fulfills IEC 60651 requirements
- Accuracy class 2 L
- Detachable microphone to avoid measurement errors
- Calibration via buttons
- Accurate quartz calibrator available as accessory
- Includes:
 - Microphone
 - Wind cap and battery

Accuracy	Range	Resolution
+/-1 dB	32 - 130 dB	0.1 dB

Price Each

Order Code	Product Code	1+	4+
WX32679	05638155	£231.17	POA

Multi-Function Environment Meter



- A cost effective introduction to aid conformance to Health and Safety in the workplace
- Measures sound levels, light levels, % RH and temperature
- Electric condenser microphone for sound level measuring C frequency
- Cosine corrected silicone diode sensor for lux level
- Semi-conductor sensor for humidity measurements
- K Type input for °C/°F temperature measurements
- Includes:
 - Case
 - Lux, RH and Wire Temperature Sensors
 - Battery
 - Wind Muffler

Function	Accuracy	Range	Resolution
Sound	+/-3.5 dB	35-130dB	±0.1 dB
Lux	±5%	0-20,000	1 Lux
%RH	±5%RH	25-95%	0.1% RH
Temperature	±3%Rdg +2°	-20-750°C	0.1°C

Price Each

Order Code	Product Code	1+	4+
WX30029	PT-5035	£135.00	POA

5-in-1 Multi-Function Environment Meter



NEW

- This 5-in-1 multi-function environment meter measures sound levels, light levels, airflow, %RH and temperature
- Auto Ranges for sound with 'A' frequency weightings
- Cosine corrected silicon diode sensor for Lux levels
- 70mm Vane for airflow
- Semiconductor sensors in the probe for humidity and ambient temperature measurements
- °C or °F temperature measurements
- 55mm LCD display with backlight and function indicators
- Data Hold function freezes displayed value
- Max Hold displays highest measured value
- Max Memory displays highest measured value since power on
- Auto Power Off
- Low Battery Indication
- Standard 4mm camera bush for tripod mounting
- 2 Year Warranty
- Supplied in a briefcase carry case with Lux probe, 70mm Vane, Humidity/Temperature probe, wind muffler and battery
- Calibration Certificate Issued at 4 points: 94dB, 350Lux, 35%RH @ 25°C (for K Type)
- Power 1 x 9V PP3 Alkaline Battery (LR-61)
- Dimensions 252 x 66 x 33mm
- Weight 568g

Function	Accuracy	Range	Resolution
Sound	+/-2 dB	35-130dB	0.1 dB
Lux	±4%±5% F/s	0-200,000	0.01 Lux
Air Flow	±±0.3Dg	0.5 - 30m/s	0.1
%RH	±5%RH	10-95%RH	0.1% RH
Temperature	±2°C	-40-75°C	0.1°C

Price Each

Order Code	Product Code	1+
WX63854 ‡	ET-965	5 in 1 Meter £150.00
WX63855 ‡	CAL-EN	Traceable Cal Cert £70.00
WX53690 ‡	TP-1220R	Instrument Tripod £35.00

Precision Data Logging Sound Level Meter



NEW

- Precision sound level meter designed to meet IEC 61672-1 Class 2 with accuracy of ±1.4dB.
- A ½" electret condenser microphone ensures accurate and repeatable readings.
- A modern ergonomically shaped grip, high-intensity backlight and USB interface make this sound level meter easy to use
- Data logging memory for 32,600 readings.
- Auto Ranging 30 to 130dB, Manual Ranges 30 to 80dB, 50 to

- 100dB, 80 to 130dB, 0.1dB resolution
- Selectable 'A' or 'C' frequency weightings
- Fast or Slow response filters
- 55mm LCD display with function indicators, bargraph and Backlight
- Min/Max, Data Hold with Peak Max and Peak Min
- Over Range and Under Range indication
- Auto Power Off after 15 minutes of no activity - can be user disabled
- Low Battery indication
- USB interface for real time transfer of readings to a PC or Laptop
- Data logging for 32,600 readings
- Data sampling interval can be set by the user from 1 second to 36,000 seconds
- Standard 4mm camera bush for tripod mounting
- Supplied with wind muffler, 3.5mm earphone plug, USB cable (1m), software, AC/DC mains power adaptor, hard carry case and battery
- 2 year warranty
- Calibration Certificate Issued at 2 points: 94dB & 104dB at a frequency of 1KHz
- Frequency Range 31.5Hz to 8KHz
- Power 1 x 9V PP3 Alkaline Battery (LR-61)
- Dimensions 252 x 66 x 33mm
- Weight 262g

Price Each

Order Code	Product Code		1+
WX63856 ‡	ET-958	Sound Level Meter	£195.00
WX63853 ‡	CAL-SL	Traceable Cal Cert	£70.00
WX53690 ‡	TP-1220R	Instrument Tripod	£35.00

Light Meters

Introduction to Lighting in the Workplace

- Light can be measured in many ways. Lux is the European standard for light measurement.
- Lux is a unit of illumination of one square metre, which is one metre away from a uniform light source
- Legislative Requirements
- Under Health & Safety at Work Act 1974 an employer has a duty to ensure the health and safety of employees
- The Act includes a duty to provide lighting to ensure that work can be done safely and that employees health or eyesight are not jeopardised
- Regulation no.8 of the workplace Regulations 1992 states employers must ensure that:-
- Every workplace has suitable and sufficient lighting
- This should be natural light, so far as reasonably practicable

Pocket Light Meter



- Innovative pocket sized measurement technology for measuring ambient light conditions
- Small, compact and accurate
- Sensor is adjusted to the spectral sensitivity of the eye
- Hold reading function
- Max./min. values
- Range 0 to 99,999 Lux
- Units Lux, footcandle
- Includes: Wrist strap, belt holder, protective cap, batteries and calibration protocol

Dimensions: 133x46x25mm

Price Each

Order Code	Product Code	1+	4+
WX42055	0560540	£119.40	POA

Light Meter with Location Management



- In order to have good quality light, the luminous intensity in the workplace, hospitals, offices or schools has to fulfill specific minimum guidelines
- The revolutionary flexible shaft adjusts into almost any position
- A location list can be saved and separately saved luminous intensity values can be connected to form a curve using software
- This "light profile" provides information on the uniformity of the lighting
- Multi-point or timed mean calculation
- Logger function (3000 readings)
- Quick documentation on location with Testo printer
- Includes: Probe, Batteries, Certificate of Conformity

Accuracy	Range	Resolution
+/- 1	0 - 100,000	1 Lux (0 - 32,000) 10 Lux (0 - 100,000)

Price Each

Order Code	Product Code	Description	1+	4+
WX32669 ‡	05600545	Light Meter	£358.51	POA

‡ Special delivery applies. Please call for details

Fluke 1000FLT Lamp Tester



FLUKE

NEW

- Perform 5 Tests with 1 Compact Tool
- The most complete light tester incorporating all tests and functions needed to find root cause
- Lamp Test: Test bulb without removing from fixture
- Ballast Test: Easily determine if ballast is working
- Non-contact voltage: Quickly check for voltage presence
- Pin continuity Test: Tests if filaments have continuity
- Ballast-type Test: Determine if ballast is electronic or magnetic without taking fixture apart – identify energy wasting ballasts
- Lamp test max output 3000 V peak
- Ballast test 20 kHz
- Ballast type discriminator ≤3m (10 feet) distance
- Pin continuity test < 1 kΩ
- NCV (VoltAlert™) 85 to 400 V AC, 45 a 67 Hz ≤10 cm (4 in) distance
- Operating Temp: -10 °C to +50 °C (14 °F to +122 °F)
- Storage Temp: -40 °C to +60 °C (-40 °F to +140 °F)
- Relative humidity 85% maximum
- Safety rating IEC 61010-1, pollution degree 2
- Size 215 x 30x 65 mm
- Weight 0.37 kg
- Battery type 4 x AA alkaline IEC LR6
- Resistance to impact 2 meter drop
- Warranty 3 years
- Supplied with H1000 Holster and Quick Reference Guide

Price Each

Order Code	Product Code	Description	1+
WX63857	1000FLT	Lamp Tester	£182.70

Thermometers

Air and Surface Temperature



- Surface temperature IR measurement with 1-point laser spot marking and 6:1 optics
- Air temperature measurement
- Display of differential temperature e.g between window and air temperature
- Hold function and max./min. values
- Units °C / °F
- Includes:- Batteries (AAA x 2), Wrist strap, Belt holder, Protective Cap

Dimensions (inc cap) 119x46x25mm

Surface Temperature	Air Temperature
-30 to 300°C	-10 to 50°C
Accuracy: ±2.0°C (-30 to 100°C)	Accuracy: ±0.5°C

Price Each

Order Code	Product Code	1+	4+
WX42050	05600810	£93.87	POA

Air Temperature and Humidity Measurement



- Long-term drift free Testo humidity sensor
- 2.5%rh accuracy with calibration protocol
- Includes dewpoint calculation and wet bulb
- Hold function and max./min. values
- Includes:- Batteries (AAA x 2), Wrist strap, Belt holder, Protective Cap

Dimensions (inc cap) 119x46x25mm

Measuring range	Accuracy
-10 to 50°C	±2.5%rh (5 to 95%rh)

Price Each

Order Code	Product Code	1+	4+
WX42049	05600610	£143.08	POA

174T Mini Data Logger

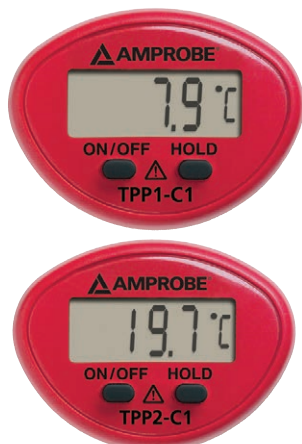


- The testo 174T mini data logger is ideal for the temperature measurement in refrigerators, freezers, cold rooms and cold shelves
- High data integrity, even with empty battery
- Large measurement data memory
- Watertight in accordance with IP65
- Compact and robust
- Conforms to EN12830
- Issue of alarms via display
- Data transfer to the PC via
- USB interface
- Probe type: Internal NTC temperature sensor
- Measuring range: -30 to +70 °C
- Accuracy: ± 0.5 °C (-30 to +70 °C)

Price Each

Order Code	Product Code	1+	4+
WX53678	05721560	£54.74	POA

Pocket Thermometer



- Small handy thermometers that are ideal for everyday use
- Range -50 to 250 °C
- 0.1 °C resolution
- Data hold
- Long battery life, 200hr. typical
- Two models:
- TPP1-C Immersion piercing probe with protective sleeve
- TPP2-C Surface probe

Price Each

Order Code	Product Code	1+	5+
WX38667	TPP1-C	£13.00	POA
WX38668	TPP2-C	£13.00	POA

EXTECH SD800 CO2/Humidity/Temperature Datalogger



- Checks for Carbon Dioxide (CO2) concentrations
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO2 sensor
- Triple LCD simultaneously displays CO2, Temperature and Relative Humidity
- Measurement ranges: CO2 - 0 to 4,000ppm; Temperature - 32 to 122°F (0 to 50°C); Humidity - 10 to 90%RH
- Datalogger stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with six AAA batteries, 2G SD memory card, universal AC adaptor, and mounting bracket

Price Each

Order Code	Product Code	1+	4+
WX60960	SD800	£306.49	POA

Pocket Checktemp



- Checktemp is provided with a unique calibration check function: simply activate a switch and the instrument will simulate an ice bath of 0.0°C signal that is displayed on the LCD within a range of ± 0.3 °C. This system guarantees the accuracy of your measurement every time!
- The sharp tip probe of the Checktemp easily penetrates semisolid products, making routine controls simple and quick for both incoming and outgoing goods
- Checktemp is the ideal instrument for measuring temperature to HACCP requirements
- Probe: Stainless steel 105mm x dia 3mm (4.1x0.1")
- Battery: (1) 1.5V Approx 3000 hours use
- Dimensions: 66x50x25mm
- Weight: 122g, IP65

Accuracy	Range	Resolution
± 0.3 °C (-20 to 90°C)	-50.0 to +150.0°C	0.1°C
± 0.5 °C outside		

Price Each

Order Code	Product Code	1+	4+
WX31395	CHECKTEMP	£30.21	POA
WX31415	HI-92200	£5.05	POA

Industry Differential Thermometer



- Testo 932 thermometer can measure the temperatures of 2 probes
- Ability to show readings simultaneously on the easy-to-read display
- The differential temperature can be called up and data is printed on site on the Testo printer
- 2 channels, Type K/J/T
- Display for T1, T2 and differential temperature
- TopSafe indestructible case protects from dirt and impact
- Includes battery and Certificate Of Conformity

	Accuracy	Range	Resolution
Probe K	$\pm (0.7^\circ\text{C} \pm 0.5\% \text{ of mv})$ (-40 to 900°C)	-50 to 1000°C	0.1°C (-50 to 199.9°C) 1°C (200 to 1000°C)
	$\pm (1^\circ\text{C} \pm 1\% \text{ of mv})$ (-50 to -40.1°C)		
	$\pm (1^\circ\text{C} \pm 1\% \text{ of mv})$ (900.1°C to 1000°C)		
Probe J	$\pm (0.7^\circ\text{C} \pm 0.5\% \text{ of mv})$ (-50 to 750°C)	-50 to 750°C	0.1°C (-50 to 199.9°C) 1°C (+200 to 750°C)
Probe T	$\pm 0.6^\circ\text{C}$ (-20 to 70°C) $\pm (1^\circ\text{C} \pm 0.5\% \text{ of mv})$ (-50 to -20.1°C) $\pm (1^\circ\text{C} \pm 0.5\% \text{ of mv})$ (70.1°C to 350°C)	-50 to 350°C	0.1°C (-50 to 199.9°C) 1°C (+200 to 350°C)

Price Each

Order Code	Product Code	1+	4+
WX32673	05609221	£119.22	POA

General Purpose Thermometer



- Ideal for measuring the temperature of a wide variety of industrial applications such as bearing housings and gearboxes
- Durable, user friendly, pocket sized instrument
- A flexible probe ensures effective surface contact for accurate temperature measurement
- Supplied with a handy pouch and belt clip
- Resolution of 1°C/F
- Auto power off function

Temperature Range	-40 to 200° C (-40 to 392° F)
Display Resolution	1° / °F
Probe	K - Type
Weight	95 g (0.2 lbs)
Battery	3 x AAA
Battery Life	4000 Hours
IP Rate	IP65

Price Each

Order Code	Product Code	Description	1+	3+
WX32575	TMT200	Thermometer	£137.41	POA

Single Input K-Type Thermometer



- Single Input K-Type Thermometer
- These single input K-Type thermometers offer high accuracy and fast response times. Ideal for industrial and laboratory use.
- -50° to 1300°C x 0.1°
- Measures in °C, °F or Kelvin, user selectable
- Sampling rate of 2.5 times per second
- Over Range indication
- Data Hold freezes displayed values
- Max Hold displays highest measured value
- Auto Power Off
- Low Battery indication
- Room temperature compensation via 'TC' button. Temperature compensator that shows the room temperature when pressed with no k-type probe connected.
- 45mm LCD display with Backlight and function indicators
- Impact-resistant ABS case with protective rubber holster and flip out stand
- Supplied with carry case, rubber holster, 950mm bead probe and battery

Range	-50° to +1300°C, -58° to 2000°F, +223K to 2000K
Resolution	User Select 0.1° or 1° < 199.9°. 1° > 200, 1K
Accuracy	±(0.5%rdg + 1°C) (0° to 1000°C) ±(0.8%rdg + 1°C) (1000° to 1300°C)
Power	1 x 9V PP3 Alkaline Battery (LR-61)
Dimensions	162 x 76 x 39mm
Weight	210g

Price Each

Order Code	Product Code	1+	4+
WX60962 ‡	TK-610B	£60.00	POA

‡ Special delivery applies. Please call for details

Hi-Accuracy Dual Input K & J Type Thermometer



NEW

- This dual input K & J Type thermometer offers higher accuracy reading and fast response times
- Ideal for industrial, laboratory and Education use.
- -200° to 1370°C x 0.1° below 1000°C Type K
- -200° to 1100°C x 0.1° below 1000°C Type J
- Measures in °C, °F or Kelvin, user selectable
- 55mm Dual LCD display with Backlight and function indicators
- Dual Input thermometer accepts 2 inputs with individual measurements or as differential measurements, T1 minus T2
- Sampling rate of 2.5 times per second
- Data Hold freezes displayed values
- Min Max Memory since power on or last reset
- Average Function of the last 10 measured values
- Auto Power Off
- Low Battery indication
- Impact-resistant ABS case with a 4mm camera bush
- 2 year Warranty
- Supplied with soft carry case, 2 x 950mm bead probes and battery
- Unit Calibration Certificate Both Inputs - Issued at 5 points: 25°C, 50°C, 100°C, 140°C & 500°C
- System Calibration Certificate Issued at 4 points: 25°C, 50°C, 100°C & 140°C
- Range -200° to +1372°C, -328° to 2498°F Type K, -200° to +1100°C, -328° to 2012°F Type J
- Resolution 0.1° < 1000°. 1° > 1000
- Accuracy ±(0.5%rdg + 2°C) (<0°C) & (>1000°C), ±(0.15%rdg + 1°C) (0 to 1000°C)
- Power 1 x 9V PP3 Alkaline Battery (LR-61)
- Dimensions 185 x 66 x 33mm
- Weight 245g

Price Each

Order Code	Product Code	1+
WX63859 ‡	ET-959	Dual Input Thermometer £95.00
WX63860 ‡	CAL-TK2	Traceable Cal Cert (T1 & T2) Unit £57.50
WX63861 ‡	CAL-TKSYS	Traceable Cal Cert (Unit & 1 Probe) £57.50
WX63862 ‡	UCAS-TK	UCAS Cal Cert (Unit & 1 Probe) £70.00
WX53690 ‡	TP-1220R	Instrument Tripod £35.00

‡ Special delivery applies. Please call for details

Hi-Accuracy Four Input K & J Type Thermometer



NEW

- This 4 input K & J Type thermometer offers higher accuracy reading and fast response times
- Ideal for industrial, laboratory and Education use
- -200° to 1370°C x 0.1° below 1000°C Type K
- -200° to 1100°C x 0.1° below 1000°C Type J
- Measures in °C, °F or Kelvin, user selectable
- 55mm Dual LCD display with Backlight and function indicators
- 4 Input thermometer accepts 4 inputs with individual measurements or as differential measurements, T1 minus T2 or T3 minus T4
- Sampling rate of 2.5 times per second
- Data Hold freezes displayed values
- Min Max Memory since power on or last reset
- Average Function of the last 10 measured values
- Auto Power Off
- Low Battery indication
- Impact-resistant ABS case with a 4mm camera bush
- 2 Year Warranty
- Supplied with soft carry case, 4 x 950mm bead probes and battery
- Unit Calibration Certificate 4 Inputs - Issued at 5 points: 25°C, 50°C, 100°C, 140°C & 500°C

- System Calibration Certificate Issued at 4 points: 25°C, 50°C, 100°C & 140°C
- Range -200° to +1372°C, -328° to 2498°F Type K, -200° to +1100°C, -328° to 2012°F Type J
- Resolution 0.1° < 1000°. 1° > 1000
- Accuracy ±(0.5%rdg + 2°C) (<0°C) & (>1000°C), ±(0.15%rdg + 1°C) (0 to 1000°C)
- Power 1 x 9V PP3 Alkaline Battery (LR-61)
- Dimensions 185 x 66 x 33mm
- Weight 245g

Price Each

Order Code	Product Code	1+
WX63863 ‡	ET-960	Four Input Thermometer £105.00
WX63864 ‡	CAL-TK4	Traceable Cal Cert (4 Inputs) Unit £70.00
WX63861 ‡	CAL-TKSYS	Traceable Cal Cert (Unit & 1 Probe) £57.50
WX63862 ‡	UCAS-TK	UCAS Cal Cert (Unit & 1 Probe) £70.00
WX53690 ‡	TP-1220R	Instrument Tripod £35.00

‡ Special delivery applies. Please call for details

Digital K-Type Folding Probe Thermometer & Probe Kit



- This K-Type folding probe thermometer with 4 stainless steel probes offers ease of use, fast response and flexibility for a wide variety of temperature measurements
- The versatile probe kit is ideally suited for surface, air, liquids or semi-solid sampling with the 4 stainless steel probes supplied
- The probe connector is adjustable through 45, 90, 135 or 180 degree angles
- Measures °C or °F
- ABS case with a folding K-Type probe connector
- 4 K-Type stainless steel thermocouple probes: 2 penetration probes 125 x 3mm and 140 x 4mm, 1 air probe 230 x 3mm, 1 surface probe 250 x 4mm
- Probe connector adjustable through 45°, 90°, 135° or 180°
- Large 22mm LCD display with timer and function indicators
- Fast response time of 1 second
- Data Hold
- Min/Max memory since power on
- Auto power off after 1 hour
- Low battery indicator
- Suitable for all K-Type thermocouple probes with mini K-Type plugs
- Supplied with hard carry case, 4 K-Type probes, wrist strap & batteries

Range	-199°C to +300°C (-328° to +572°F) for probes supplied -199°C to +1300°C (-328° to +2000°F) with suitable probes
Resolution	0.1°C or F
Accuracy	±1°C/ 1.8°F (-49°C to +740°C/-56.2°F to +1364°F) ±2°C or 4°F others
Sampling	Every second
Power	2 x 3V button cell battery
Dimensions	155 x 50 x 20mm
Weight	75g

Price Each				
Order Code	Product Code	Description	1+	3+
WX43955	TK-9218	Folding Probe Kit	£75.00	POA

Thermocouple Data Logger with USB Interface



- The MEL-USB-TC data logger measures and stores over 32,000 temperature readings for a K, J or T-Type thermocouple temperature probe with simple download of the stored data directly to your PC's USB port
- Thermocouple Data Logger Stores > 32,000 readings for a K, J, or T-Type thermocouple probe
- Thermocouple socket in the base of the unit accepts a K, J, or T-type thermocouple temperature probe with the standard mini plug
- USB interface for set up and data transfer to PC
- Set up allows the user to select thermocouple type, logging rate, start time, alarm limits and logging mode
- User selectable logging intervals min 1 sec, max 12 hours
- LED display for status information
- 2 user-programmable alarm thresholds
- Visual LED alarm if high or low limits exceeded
- PC analysis software runs under Windows 2000, XP or Vista with graphical display of data - total readings, zoom facility to individual readings and visual indication of alarm levels
- Supplied with software, battery and K-Type thermocouple

Range	-200°C to +1300°C (K-Type), -130°C to +900°C (J-Type), -200°C to +350°C (T-Type)
Resolution	1°C
Accuracy	±1.0°C (-10 to +40°C)
Logging Rate	every 1 sec, 10 sec, 1 min, 5 mins, 30 mins, 1 hr, 6 hrs, or 12 hrs selectable
Max Readings Capacity	32,000
Operating Temp Range	-35° to +80°C
Power	1 x 3.6V 1/2AA Lithium battery
Dimensions	118 x 27 x 26mm
Weight	39g

Price Each				
Order Code	Product Code	Description	1+	3+
WX43956	MEL-USB-TC	Data Logger	£69.35	POA

Workplace Thermometer



- Specially designed to help monitor working environments in accordance with Workplace (Health, Safety & Welfare) Regulations 1992 Section 7
- Range -20° to +50°C
- °C, °F
- Division 1°C
- Spirit Filled
- Clear indication of 16°C level required for minimum workroom temperature
- Moulded white plastic case
- Wall mount keyway

Price Each				
Order Code	Product Code	1+	4+	
WX53555	TH-390	£10.00		POA

Calibration Tools

Multifunction Process Calibrator/Meter



EXTECH
A FLIR COMPANY

- 0 to 24mA (-25 to 125%) readout
- 24V DC power source for 2-wire current loop
- 0 to 20V DC calibration source
- Source and measure 8 thermocouple type devices (J, K, T, E, C, R, S and N)
- CJC - Cold Junction Compensation function
- Up to five user adjustable calibration presets
- Palm-sized double molded housing and large dot-matrix backlit LCD
- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Displays output in terms of millivolts or temperature based on thermocouple tables
- Zero adjustment, auto zero when power on and change mode
- Standard banana I/O ports and mini thermocouple connector
- Large battery bank for extended work cycle
- External power adapter for continuous work cycle
- Complete with test leads, alligator clips, calibration cables, 100V-240V AC universal adaptor with 4 plugs, six AA batteries, and hard carrying case

Price Each				
Order Code	Product Code	Description	1+	3+
WX60964 ‡	PRC30	Calibrator	£464.35	POA

‡ Special delivery applies. Please call for details

Infrared Thermometers

Fluke Infrared Thermometer



FLUKE

- Designed with your on-the-job needs in mind, the new Fluke 62 MAX and 62 MAX+ infrared thermometers are everything you'd expect from the experts in measurement tools
- Small in size, extremely accurate and very easy to use.
- IP54 rated for dust and water resistance.
- Precise yet rugged enough to take a 3-meter drop
- The 62 MAX and 62 MAX+ are so tough, they're the only IR thermometers around you can handle without care

Specifications	62 Max	62 Max+
Temperature range	-30°C to 500°C (-22°F to 932°F)	-30°C to 650°C (-22°F to 1202°F)
Accuracy	±1.5°C or ±1.5% of reading ±2.0 at -10°C to 0°C ±3.0 at -30°C to -10°C	±1.1°C or ±1.0% of reading ±2.0 at -10°C to 0°C ±3.0 at -30°C to -10°C
Response time (95%)	<500ms (95% of reading) Spectral response: 8 to 14 microns Emissivity: 0.10 to 1.00	<300ms (95% of reading) Spectral response: 8 to 14 microns Emissivity: 0.10 to 1.00
Optical resolution	10:1 (calculated at 90% energy)	12:1 (calculated at 90% energy)
Display resolution	0.1°C (0.2°F)	0.1°C (0.2°F)
Repeatability of readings	±0.8% of reading or <±1.0°C (2°F) whichever is greater	±0.5% of reading or <±0.5°C (1°F) whichever is greater
Power	AA Battery	AA Battery

Price Each				
Order Code	Product Code	Description	1+	
WX63858	62MAX	Infrared Thermometer	£71.00	
WX60961	62MAX+	Infrared Thermometer	£79.00	

Fluke VT02 Visual IR Thermometer



FLUKE

The VT02 Visual IR Thermometer combines the convenience of a spot thermometer with the visual advantage of a thermal imager creating a brand new tool category – a troubleshooting camera with infrared heat map. Using hyper-thin pyro electric technology, Fluke discovered a way to push the limits of this technology pioneering an array dense enough to create an infrared heat map. The VT02 Visual IR Thermometer is the missing link – the ultimate in-between tool for those times when a single spot temperature reading isn't enough and a high-resolution thermal image is more than you need.

Price Each

Order Code	Product Code	Description	1+
WX60959	VT02	Visual IR Thermometer	£395.00

Fluke VT04A Visual IR Thermometer



FLUKE

NEW

- Visual image and infrared heat map blending - Identify the exact location of the potential issue by blending the visual image with the heat map overlay at 0%, 25%, 50%, 75%, and 100% infrared with one button
- NEAR and FAR mode - Align the visual and thermal lenses to correctly identify the location of the issue
- Center measurement box - See the exact area of temperature measurement right on the screen
- Field of view 28° x 28° — the tight field of view lets you see more detail in your target
- Temperature measurement range -10 °C to +250 °C (14 °F to 482 °F)
- Temperature alarms and automated monitoring features - Identify intermittent problems by monitoring equipment over time or get alerts when a temperature is outside the expected range
- Hot and cold markers - Instantly identify hottest and coldest spots within the field of view
- Save in .bmp or .is2 format - Choose .bmp when all you want is the image, or use .is2 format that can be edited in SmartView® software
- Storage medium 4 GB micro-SD card that stores up to 9,999 images
- SmartView® reporting software - Optimize the image blending and palette and quickly create professional reports
- Palettes 6 on the unit (Ironbow VT, Hot Metal, Greyscale Inverted, Greyscale, High Contrast VT, Rainbow); 4 additional in SmartView® Software (Blue Red, High Contrast, Amber, Amber Inverted).
- Pocket-size design - Handy when you need it; easily fits in your tool bag or pocket
- Intuitive interface - Get to work as soon as you take it out of the box

- Soft case (VT04A)
- Powered by 4xAA batteries (VT04A)
- Two Year Warranty

Price Each

Order Code	Product Code	Description	1+
WX63865	VT04A	Visual IR Thermometer	£495.00

TKTL 10 Infrared Thermometer



SKF

- Wide measurement range from -60 to +625 °C (-76 to +1157 °F); allows temperature measurements of many industrial applications
- Distance-to-spot ratio of 16:1; allows accurate temperature readings at a distance
- Fixed emissivity of 0,95; suitable for many applications
- Maximum temperature always shown; helps identify the real hotspots
- Auto shut off feature; helps optimise battery life

Price Each

Order Code	Product Code	Description	1+	4+
WX53635	TKTL-10	Infrared Thermometer	£82.44	POA

TKTL 20 Infrared & Contact Thermometer



SKF

- Infrared temperature measurement range from -60 to +625 °C (-76 to +1157 °F)
- Contact temperature measurement range from -64 to +1400 °C (-83 to +1999 °F)
- Distance-to-spot ratio of 16:1; allows accurate temperature readings at a distance
- User selectable variable emissivity between 0,1 and 1,0; allows most surface temperatures to be measured
- Supplied with temperature probe TMDT 2-30 (max. 900 °C / 1652 °F); suitable for many direct contact applications
- Can be used with any SKF temperature probe
- User selectable, multiple temperature measurement modes including: maximum, minimum, average, differential and probe/infrared dual display, scan function
- User selectable high and level alarm levels with audible warning signal
- Mode dependant auto shut off feature optimises battery life
- Supplied in a sturdy carrying case

Price Each

Order Code	Product Code	Description	1+	4+
WX53636	TKTL20	Dual Thermometer	£159.84	POA

FAG TempCheck PLUS



NEW FAG

- up-to-date infrared temperature technology with high precision glass optics for precise non-contact temperature measurement
- Small measurement spot of 13 mm at a distance of up to 140 mm
- Measurement spot size corresponds to 20:1 (distance: measurement spot size) at distance of more than 140 mm
- Rapid, precise temperature measurement over a temperature range of -32 °C to +530 °C
- Degree of emission adjustable to material
- Low weight (150 g)
- USB interface
- Report software
- Simple to use

Price Each

Order Code	Product Code	Description	1+	3+
WX63866	TEMP-CHECK-PLUS		£157.31	POA

IR608 Infrared Thermometer



AMPROBE

- "Pistol grip design" for comfortable grip
- Small enough to fit in your pocket
- Measuring range -18 °C to 275 °C
- Laser sighting for accurate targeting
- Display hold (7 seconds)
- Distance to spot size ratio 8:1
- Accuracy to 2%
- Backlit display
- Included with instrument: 9V battery (installed), operating instructions

Price Each

Order Code	Product Code	Description	1+	4+
WX32363	IR608		£73.00	POA

Dewpoint Laser Temp Detector



- Dew Point Temperature Detector with Dual Laser Targeting
- A high accuracy combined temperature, humidity & dew point infrared thermometer with dual laser targeting for fast and accurate non-contact measurement of most surfaces. Suitable for a wide range of applications including storage, factories, warehouses, manufacturing, plant & general maintenance, HVAC, transportation & automotive and health & safety.
- -50° to 350°C x 0.1°, 0% to 100% x 0.1%
- User selectable °C or °F
- Select Temperature, Humidity or Dew Point by pressing the MODE button
- Just point, pull the trigger and read the display
- Dual laser pointers converge to a single spot when the unit is at the optimal distance from the object being measured
- Class II laser to identify the centre of the area being measured
- Distance to spot size ratio is 20 to 1 at the focal point
- Fixed emissivity at 0.95
- Response time less than 150 milliseconds
- 37.0mm LCD dual display with Backlight and function indicators
- Trigger Lock for continuous measurement
- Maximum display
- Over Range Indicator - LED warning light that shows three different colours; green indicates normal (no moisture), yellow indicates close to dew point & red indicates dew point
- Auto Power Off after 15 minutes of no activity
- Low Battery indication
- Supplied with carrying case, manual and battery

	Temperature	Humidity	Dew Point
Range	-50°C to +350°C	0 to 100%RH	-30°C to +100°C
Resolution	0.1°C	0.1%RH	0.1°C
Accuracy	±3.5°C (-50°C to +20°C) ±1% of reading ±1.5°C (+20°C to +350°C)	±3.5%RH (20% - 80%)	±2.0% of reading
Power	1 x 9V PP3 Alkaline Battery (LR-61)		
Dimensions	168 x 82 x 58mm		
Weight	163g		

Price Each

Order Code	Product Code	1+	4+
WX60966	HT-8663	£91.00	POA

Dual Laser IR Thermometer with Color Alert



EXTECH
A FLIR COMPANY

- Great for processes that require temperature control and monitoring
- Fast and accurate measurements at 12" where the two lasers converge with 12:1 field of view
- Measures up to 950°F (510°C)
- Blue backlit dual LCD display changes to Red backlit when reading exceeds High or Low set points

- Exclusive 150 millisecond instantaneous response for capturing spikes in temperature
- Max mode captures and holds rapidly changing temperatures
- Lock function for continuous readings (disables auto power off)
- Adjustable emissivity increases measurement accuracy for different surfaces
- Double molded housing
- Complete with case and 9V battery
- Specifications:
Laser Convergence Distance: 12" (30.5cm)
Range: -4 to 950°F (-20 to 510°C)
Repeatability: ±0.5% or 1.8°F/1°C
Basic Accuracy: ±(1% of rdg + 2°F/1°C)
Max resolution: 0.1°F/°C
Emissivity: 0.10 to 1.00 Adjustable
Field of View (Distance to Target): 12:1
Dimensions: 5.7x4x1.6" (146x104x43mm)
Weight: 5.7oz (163g)

Price Each

Order Code	Product Code	1+	4+
WX53588	42509	£77.25	POA

Fluke 63 Infrared Thermometer



FLUKE

- The professional's diagnostic tool
- The Fluke 63 non-contact thermometer is the ideal professional
- This handheld portable tool enables professionals to research heating and ventilation problems, monitor the status of electrical motors and electrical panels and diagnose car malfunctions with ease
- Expanded measurement range up to 535°C (999°F)
- High-resolution optics
- High accuracy: 1% and repeatability: 0.5%
- MAX temperature display and laser targeting
- LCD backlit display for easy reading
- Distance to spot: 12:1
- Response time of 500 milliseconds
- Takes 9V alkaline battery

Accuracy	Range
-32 to -26°C (-25 to -15°F): ±3°C (±5°F)	-32 to 535°C (-25 to 999°F)
-26 to -18°C (-15 to 0°F): ±2.5°C (±4°F)	
-18 to 23°C (0 to 73°F): ±2°C (±3°F)	
23 to 510°C (73 to 950°F): ±1	
or ±1°C (±2°F), whichever is greater	
Above 510°C (950°F): ±1.5 % of reading	

Price Each

Order Code	Product Code	1+	4+
WX38639	63	£191.00	POA

Mini Infrared Thermometer



testo

- The compact 80mm Infrared Thermometer fits into any pocket
- Rapid measurements
- High accuracy in any critical area
- Packaging remains undamaged
- TopSafe is dishwasher safe and IP 65 waterproof
- Display of min and max values
- Scan mode for permanent measurement
- Emissivity of 95 and 1.00

Specification Table

Range	-25 to +250°C
Accuracy	±3°C (-25 to 21°C) ±1°C (-2 to 40°C) ±1.5°C (+40 to 150°C) ±2°C (remaining range)
Resolution	0.1°C (-9.9 to +199.9°C) 1°C (remaining range)
Operating Temp	0 - +50°C
Dimensions	80 x 31 x 19 mm

Price Each

Order Code	Product Code	1+	4+
WX38700	05638051	£55.97	POA

Dual Laser Infrared and Contact Thermometer



SKF

- A contact and non contact infrared thermometer with a wide measurement range and dual laser sighting
- Wide infrared temperature measurement range from -60 to +1 000 °C (-76 to +1 832 °F).
- Contact temperature measurement range from -64 to +1 400 °C (-83 to +1 999 °F)
- Dual laser sighting feature defines the diameter of the area being measured; helps the user to precisely pin-point the temperature measurement area
- Distance-to-spot ratio of 50:1; allows accurate temperature readings at long distances or for measuring temperatures of small areas
- User selectable variable emissivity between 0,1 and 1,0; allows most surface temperatures to be measured.
- Supplied with temperature probe TMDT 2-30 (max. 900 °C/ 1 652 °F); suitable for many direct contact applications
- Can be used with any SKF temperature probe
- User selectable, multiple temperature measurement modes

- including: maximum, minimum, average, differential and probe/infrared dual display, scan function
- User selectable high and level alarm levels with audible warning signal
- Mode dependant auto shut off feature optimises battery life
- Supplied in a sturdy carrying case

Technical data

Designation	Infrared digital thermometer TKTL 30
Description	Infrared digital thermometer
Temperature ranging infrared	-60 to +1 000 °C (-76 to +1 832 °F)
Temperature ranging probe	-64 to +1 400 °C (-83 to +1 999 °F)
Probe supplied	TMDT 2-30, suitable for use up to 900 °C (1 650 °F)
Environmental limits	Operation 0 to 50 °C (32 to 120 °F) 10 to 95% R.H. Storage -20 to 65 °C (-4 to 150 °F) 10 to 95% R.H.
Full range accuracy (Tamb=23 ±3 °C)	±2% of reading or 2 °C (4 °F) whichever is greater
Response time (90%)	<1 000 ms
Display	LCD
Displayed resolution	0,1 °C/F from -9.9-199.9, otherwise 1 °C/F
Distance to spot size	50:01:00
Spectral response	8-14 µm
Emissivity	0,1-1,0
User selectable backlit display	On/Off
User selectable laser pointer	On/Off
Measurement modes	Max, min, average, differential, probe/IR dual temperature modes
Alarm modes	High and low level alarm level with warning beep
Laser wavelength	630-650 nm
Laser	Class 2
Maximum laser power	1 mW
Dimensions	203,3 x 197 x 47 mm (8.0 x 7.7 x 1.8 in.)
Packaging	Sturdy carrying case
Case dimensions	340 x 200 x 65 mm (13.4 x 7.9 x 2.6 in.)
Weight	Total (incl. case): 1 080 g (2.38 lbs) TKTL 30: 370 g (0.815 lbs)
Battery	2 x AAA Alkaline type IEC LR03
Battery lifetime	140 hours with laser and backlight off. Otherwise 18 hours
Switch off	IR mode automatic after 60 s after trigger is released (60 min can be manually selected) Probe mode automatic after 12 min
EMC standards	EMC 2004/108/EC

Price Each

Order Code	Product Code	1+	4+
WX51150 ‡	TKTL30	£217.69	

‡ Special delivery applies. Please ask for details

Humidity Meters

Thermo-Hygrometer



- Simultaneous display of humidity in % RH & temperature in °C or °F
- 63mm x 80mm large digit LCD display
- Min/max memory since last reset
- Single button allows min/max readings to be displayed separately for temperature and humidity
- Reset clears memory for both temperature and humidity

- Impact-resistant ABS case with a flip out desk stand for free standing applications and key-way for wall mounting

Specification Table

Temp Range	-10°C to +50°C
Humidity Range	25% to 98% RH
Resolution	0.1°C, 1% RH
Accuracy	±1°C, ±5% RH
Power	1 x 1.5V AA battery (supplied)
Dimensions	138x95x20mm only
Weight	143g

Price Each

Order Code	Product Code	1+	4+
WX43957	MHT-986HI	£16.50	POA

Thermo Hygrometer



- Affordable thermo hygrometer
- Continuous measurement of %rh, temperature and temperature dew point; Min/Max display
- Humidity sensor not damaged by water saturation
- Large easy to read display
- 2 to 98%rh Measuring range

Price Each

Order Code	Product Code	1+	4+
WX38697	05606081	£60.51	POA

Material Moisture, Air Temperature and Humidity



- Measurement of wood moisture e.g. beech, spruce, larch, oak, pine and maple
- Air temperature and humidity for monitoring drying processes
- Curves for cement screed, concrete, plaster, anhydrite, cement, mortar, lime and brick
- Hold and auto-test functions
- Includes:-
Batteries (AAA x 2)
Wrist strap
Belt holder
Protective Cap

Dimensions (inc cap) 119x46x25mm

Material moisture measuring range: 0 to 90%	Accuracy: ± 1% (conductivity)
Air humidity measuring range: 0 to 100%rh	Accuracy: ± 2.5%rh (5 to 95%rh)
Air temperature: -10 to 50°C	Accuracy: ± 0.5%

Price Each

Order Code	Product Code	1+	4+
WX42056	05606062	£170.71	POA

Humidity and Temperature meter



- Dual display of relative humidity and temperature
- Relative function monitors humidity and temperature changes
- Extended probe stem to easily access air ducts
- Min/max readings
- Data hold to freeze measurement value on display
- Capacitive sensor with protective cover
- Auto power off
- Soft carrying case

Accuracy	Range	Resolution
5 % RH to 95 % RH: ±3 % RH	0 to 100 % RH	0.1 %RH
-20 °C to 60 °C: ±0.8 °C -20 °C to 60 °C (-4 °F to 140 °F)		0.1 °C/0.1 °F

Price Each

Order Code	Product Code	1+	4+
WX38669	TRH22	£95.00	POA

Temperature Humidity Meter



- Quickly take accurate humidity and temperature readings in the air
- Temperature and humidity are two important factors in maintaining optimal comfort levels and good indoor air quality
- The Fluke 971 is invaluable for facility maintenance and utility technicians, HVAC-service contractors, and specialists
- Lightweight, rugged, and easy to hold, the Fluke 971 is the perfect tool for monitoring problem areas
- Measures dew point and wet bulb
- 99 Record storage capacity
- Min/max/avg data hold
- Ergonomic design with built-in belt clip and protective holster
- Backlit, dual readings display
- Battery life: 4 AA alkaline, 200 hours

Temperature Range	-20 °C to 60 °C
Temperature Accuracy	0 °C to 45 °C ± 0.5 °C -20 °C to 0 °C and 45 °C to 60 °C ± 1.0 °C
Resolution	0.1 °C
Response Time (temperature)	500 ms
Temperature Sensor Type	NTC
Relative Humidity Range	5% to 95% R.H.
Relative Humidity Accuracy	10 % to 90 % R.H. @ 23 °C ± 2.5 % R.H. <10 % > 90 % R.H. @ 23 °C ± 5.0 % R.H.

Humidity Sensor	Electronic capacitance polymer film sensor
Data Storage	99 points
Response Time (humidity)	For 90% of total range – 60 sec with 1 m/s air movement

Price Each			
Order Code	Product Code	1+	5+
WX38644	971	£176.00	POA

Precision Thermo-Hygrometer



- Measures absolute and relative humidity
- Compact, easy-to-use, robust instrument for fast, accurate and repeatable measurements of absolute and relative humidity, air temperature, dew point & wet bulb temperatures
- Ideal for single-handed operation when taking measurements in air stream
- Suitable for monitoring air conditioning and heating system ducts, controlled environments, storage areas and other critical areas
- Displays relative humidity in %RH, absolute humidity in grams per cubic meter(g/m³) or grains per cubic foot(gr/ft³)
- Displays air temperature, dewpoint & wet bulb temperature in °C or °F
- Impact-resistant ABS case with integrated humidity/temperature probe sensor and shaped rubber moulded grip
- Precision capacitance humidity sensor for fast and accurate readings
- Thermistor temperature sensor
- Large high-contrast 56mm backlit LCD dual display with function indicators
- Simultaneous display of humidity and temperature readings
- Min/max values
- Data hold freezes displayed readings
- Low battery indication
- Auto off after 10 minutes can be user disabled
- Tripod mount bush
- Supplied with hard carry case & battery

Humidity Range	0% to 100% RH
Absolute Humidity	0 to 500g/m³, 0 to 208.5gr/ft³
Temperature Range	-30° to +100°C
Resolution	0.1% RH, 0.1°C
Accuracy	±2% RH (+40 to +60%RH) ±3% RH (+20 to +40% and +60 to +80%RH) ±4% RH (0 to +20% and +80 to +100%RH) ±1°C (-20° to +60°C), ±1.5°C (rest of range)
Power	9V PP3 battery
Dimensions	300 x 75 x 50mm
Weight	400g

Price Each			
Order Code	Product Code	1+	4+
WX43959 ‡	HT-8892	£145.00	POA

‡ Special delivery applies. Please call for details

Humidity & Temperature Data Logger



- Two channel humidity and temperature datalogger with 32,700 readings memory
- Compact and easy-to-use dual channel data logger for efficient monitoring of temperature and humidity values
- Ideal for monitoring food, medical product storage, warehousing & distribution, containers, industrial processes, laboratory environments and museums
- Simultaneous display of temperature °C or °F and Humidity in %RH
- Impact-resistant ABS and rubber moulded case
- Large 25mm LCD display
- Displays time and date, current readings, max/min values, recording and logger full indicator
- Memory for 32,700 readings
- Selectable measurement cycle from every 1 second to 24 hours
- LED indicators for alarm and recording status
- Visual alarm in LCD display if user-defined max/min values exceeded
- Low battery indication
- USB interface for set up and data transfer to a PC
- Analysis software runs under Windows 2000, XP or Vista with graphical display of data with zoom facility for detailed views
- Supplied with wall holder, padlock, software, USB cable & battery

	Temperature	Humidity
Range	-40° to +70°C	0 to 100% RH
Resolution	0.1°C	0.1% RH
Accuracy	±2°C (-40 to -10°C) ±1°C (-10 to +40°C) ±2°C (+40 to +70°C)	±5%RH (0 to 20% & 80 to 100%) ±3.5%RH (20 to 40% & 60 to 80%) ±3%RH (40 to 60%)
Memory	32,700 readings	
Power	3.6V ½AA Lithium battery	
Dimensions	94 x 48 x 33mm	
Weight	115g	

Price Each			
Order Code	Product Code	1+	3+
WX43961 ‡	DT-172	£99.00	POA

‡ Special delivery applies. Please call for details

pH Meters

Waterproof Pocket pH Testers



- Other features include an auto-off switch, hold facility, and user replaceable pH electrode with a clogging resistant fibre junction
- Auto temperature compensation & auto calibration at 1 or 2 points with choice of 5 memorised buffers
- The new design waterproof casing with rubberised body floats if dropped in water, and has a pocket clip
- New design pocket tester with simultaneous display of pH & Temperature on a dual level LCD screen
- Auto switch-off and battery condition indicator
- Auto temperature compensation
- Auto calibration

	Accuracy	Range	Resolution
HI-98127	±0.1pH	0.0 to 14.0pH 0.0 to 60.0°C	0.1pH 0.1°C
HI-98128	±0.5pH	0.00 to 14.00pH 0.0 to 60.0°C	0.01pH 0.1°C

Price Each				
Order Code	Product Code	Description	1+	4+
WX31421	HI-98127	Waterproof pH Meter	£78.26	POA
WX39941	HI-98128	Waterproof pH Meter	£83.49	POA
WX31393	77400P	Calibration kit (pH4.01 and 7.01)	£12.10	POA
WX31408	HI-73127	Replacement pH Sensor	£44.83	POA

Waterproof pH/Temperature Meter



- Waterproof hand held pH meter designed specifically for ease of use without compromising on accuracy
- Just two buttons are used to operate all the functions on the meters, with on-screen prompts
- Combined pH and temperature probe
- 1500 hours approx. battery life, with battery power check and auto-off facility
- Auto pH calibration at 1 or 2 points with two sets of memorised buffers
- Supplied complete with probe, batteries, buffer sachets, carry case and two-year meter guarantee

Accuracy	Range	Resolution
±0.02 pH	-2.00 to 16.00 pH	0.01 pH
±0.5 to 60°C	-5.0 to 105°C	0.1°C
±1 to 105°C		

Price Each

Order Code	Product Code		1+	4+
WX31427	HI-991001	Waterproof Meter	£264.28	POA
WX31397	HI-1296D	Spare Probe	£140.06	POA
WX31407	HI-72911D	Industrial pH Electrode	£128.87	POA
WX39940	FC202D	pH Food Electrode	£134.46	POA
WX31418	HI-935B00T-I	Protective Rubber Boot	£37.20	POA

Conductivity Meters

Waterproof Conductivity/TDS/Temp Testers



- Waterproof hand held pH meter designed specifically for ease of use without compromising on accuracy
- Just two buttons are used to operate all the functions on the meters, with on-screen prompts
- Combined pH and temperature probe
- 1500 hours approx. battery life, with battery power check and auto-off facility
- Auto pH calibration at 1 or 2 points with two sets of memorised buffers
- Supplied complete with probe, batteries, buffer sachets, carry case and two-year meter guarantee

	Accuracy	Range	Resolution
HI-98311	±2% EC ±2% TDS ±0.5°C	0 to 3999 µS/cm 0 to 2000 ppm 0 to 60°C	1 µS/cm 1 ppm 0.1°C
HI-98312	±2% EC ±2% TDS ±0.5°C	0.00 to 20.00 µS/cm 0.00 to 10.00 ppt 0 to 60°C	0.01 mS/cm 0.01 ppt 0.1°C

Price Each

Order Code	Product Code	Description	1+	4+
WX31423	HI-98311	Multi-Tester	£85.00	POA
WX31424	HI-98312	Multi-Tester	£85.00	POA
WX31401	HI-7031	1413 µS/cm Solution 460ml	£16.26	POA
WX31402	HI-7032	1500ppm Solution 460ml	£16.26	POA
WX31400	HI-7030	12.88mS/cm Solution 460ml	£16.26	POA
WX31399	HI-70038P	6.44ppt (at 0.5conv.) 25 x 20ml Sachets	£21.29	POA

‡ Special delivery applies. Please call for details

Tachometers

Tachometer TMRT series



- User-friendly and accurate, utilising laser or contact for measuring rotational and linear speed
- Allows easy and quick non-contact measurement at safe distance from rotating machinery
- Provides large angular range of ± 80° to target, facilitating easy measuring in areas where straight-line access is difficult
- User can select to measure in rpm, rps, m, feet or yards per minute or second, distances or count revolutions, or time interval
- Large inverting LCD display facilitates easy reading even when pointing the unit down into the machinery
- Compact design; easy to use, one-hand operated instrument
- Intrinsically safe (Ex) version has been tested and certified according to the latest ATEX standards

Accuracy	Range	Resolution
±6% of reading	0.001 to 1.999	0.001
±2 digits	0.01 to 19.99	0.01
	0.1 to 199.9	0.1

Price Each

Order Code	Product Code	Description	1+	3+
WX36064	TMRT-1	Standard Version	£342.09	POA
Speed Range: 3-99999 rpm				
WX36065	TMRT-1EX	Intrinsically Safe	£548.69	POA
Speed Range: 3-99999 rpm				

Laser Optical Tachometer



NEW

- An optical tachometer for measuring speeds of rotating objects in RPM or for measuring surface speeds in metres per minute or feet per minute
- High-accuracy is achieved by combining CPU, photoelectrical and laser techniques
- The ergonomic design makes the instrument comfortable to use.
- RPM and Totalise counter, being non contact via supplied reflective tape
- Impact-resistant ABS case
- Laser spot for easy identification of target
- Optical detection distance 50 to 500mm
- 28mm LCD display with function indicators
- Recall of last measured value
- Min/Max Memory updated automatically
- Low Battery indicator
- Sampling rate of 0.5 seconds (over 120 RPM)
- Battery powered or via AC/DC mains power adaptor for continuous operation
- Supplied with foam padded carry case, 700mm reflective tape and batteries
- Optional/Additional Accessories :RT-10 Reflective Strips (Pack of 10), MW-300 AC/DC Mains Power Adaptor
- Calibration Certificate Issued at 5 points:100, 500, 1,000, 5,000 & 10,000RPM
- Range 2.5 to 99,999 RPM
- 1 to 99,999 Counter
- Resolution 0.1 up to 999.9 RPM, 1 above (Auto-Ranging), Counter 1
- Accuracy ±0.05%, ±1 digit
- Power 4 x 1.5V AA Alkaline Batteries (LR-6) or using optional AC/DC Mains Power Adapter (MW-300)
- Dimensions 160 x 72 x 37mm
- Weight 300g

Price Each

Order Code	Product Code		1+
WX63867 ‡	DT-6234B	Optical Tachometer	£55.00
WX63868 ‡	CAL-CT	Traceable Cal Cert	£70.00
WX63869 ‡	UCAS-CT	UCAS Cal Cert	£85.00
WX63870 ‡	RT-10	Reflective Strips (PK10)	£16.00
WX63871 ‡	MW-300	AC/DC Power Adaptor	£16.00

‡ Special delivery applies. Please call for details

Non-Contact LED Tachometer



This highly effective Non-Contact unit is designed for the engineer who requires an easy to use, high quality, high reliability tachometer to provide accurate RPM measurement.

- Easy to aim beam for quick measurements - brilliant red LED light spot for working in difficult lighting conditions
- Long optical range - 450mm
- Wide optical angle - +/- 70 degrees

- Safe speed checks 1.00 to 60,000 rpm
- Light weight and pocket sized -Dimensions: 145x60x28mm
- Supplied with: reflective tapes, batteries, instructions manual and light protective case
- Extra reflective tapes available separately

Order Code	Product Code	Description	Price Each	
			1+	4+
WX42003	ECOTACH	LED Tachometer	£99.00	POA
WX63872	A2-1003	Reflector Strip PK10	£7.50	POA

Optical RPM Measurement



- Innovative pocket sized measurement technology
- Optical rpm measurement with LED spot marking
- Includes:-
Batteries (AAA x 2)
Wrist strap
Belt holder
Protective Cap
Calibration protocol

Dimensions (inc cap) 119x46x25mm

Measuring range: 100 to 29,000 rpm Accuracy: $\pm (0.02\% \text{ of m.v})$

Units: rpm, rps

Order Code	Product Code	Price Each	
		1+	4+
WX42046	05600460	£138.14	POA

Laser Optical/Contact Tachometer



NEW

- An optical/contact tachometer for measuring speeds of rotating objects in RPM or for measuring surface speeds in metres per minute or feet per minute
- High accuracy is achieved by combining CPU, photoelectrical and laser techniques
- The ergonomic design makes the instrument comfortable to use.
- Optical: RPM non-contact via supplied reflective tape
- Contact: RPM via cone or funnel
- Contact: m/min via surface wheel
- Impact-resistant ABS case
- Laser spot for easy identification of target (optical mode)
- 28mm LCD display with function indicators
- Recall of last measured value
- Min/Max Memory updated automatically
- Interchangeable cone, funnel and surface wheel for contact measurements

- Sampling time of 0.8secs (over 60 RPM)
- Low Battery indicator
- Battery powered or via AC/DC mains power adaptor for continuous operation
- Supplied with foam padded carry case, 700mm reflective tape and batteries
- Also includes contact adaptor and accessories kit - cone, funnel and surface wheel (DT-KIT3)
- Optional/Additional Accessories: DT-KIT3 Contact Adaptor Kit, RT-10 Reflective Strips (Pack of 10), MW-300 AC/DC Mains Power Adaptor
- Calibration Certificate Issued at 5 points: 100, 500, 1,000, 5,000 & 10,000RPM
- Range 2.5 to 99,999 RPM (optical)
- 0.5 to 19,999 RPM (contact)
- 0.05 to 1,999.9 m/min
- Resolution 0.1 up to 999.9 RPM, 1 above
- 0.01 up to 100 m/min, 0.1 above
- Accuracy $\pm 0.05\%$, ± 1 digit
- Power 4 x 1.5V Alkaline Batteries (LR-6) or AC/DC Mains Power Adaptor (MW-300)
- Dimensions 210 x 74 x 37mm
- Weight 300g

Price Each

Order Code	Product Code		1+
WX63873 ‡	DT-6236B	Optical Tachometer	£99.00
WX63868 ‡	CAL-CT	Traceable Cal Cert	£70.00
WX63869 ‡	UCAS-CT	UCAS Cal Cert	£85.00
WX63874 ‡	DT-KIT3	Contact Adaptor Kit	£14.40
WX63870 ‡	RT-10	Reflective Strips (PK10)	£16.00
WX63871 ‡	MW-300	AC/DC Power Adaptor	£16.00

‡ Special delivery applies. Please call for details

Non-Contact RPM -Tachometer



- Easy one-hand operation
- Simply attach a reflector to the object to be measured, and then point the red light beam at the reflector and measure
- Saves mean/maximum value (last reading)
- RPM can be easily measured without contact
- Set also includes:-
Case
Batteries
Reflectors
Multi-point or timed mean calculation

Specification Table

Probe Type	Optical
Range	"1 - 99
Accuracy	0.02%±
Resolution	0.01 rpm (1-99.9 rpm) 0.1 rpm (100-999.9 rpm) 0.1 rpm (1000-99999 rpm)
Operating Temp	0 - 50°C
Power	2 x AA
Dimensions	144 x 58 x 20 mm

Price Each

Order Code	Product Code	1+	4+
WX32674	05630465	£178.34	POA

Non-Contact / Mechanical RPM - Tachometer



- Easy one-hand operation
- An optical measurement becomes a mechanical measurement by simply attaching an adaptor for probe tip or surface speed disc
- Measurement of rpm, speeds and lengths
- Testo 470, the ideal combination of optical and mechanical RPM measurement
- Set also includes:-
Transport case
Surface speed disc
Probe tip
Adaptor
Batteries
Reflectors

MODEL

Probe Type	Optical	Mechanical
Range	"1 - 99	999rpm"
Accuracy	0.02%±	0.02%±
Resolution	0.01 rpm (1-99.9 rpm) 0.1 rpm (100-999.9 rpm) 0.1 rpm (1000-99999 rpm)	
Operating Temp	0 - 50°C	0 - 50°C
Power	2 x AA	2 x AA
Dimensions	175 x 60 x 28 mm	175 x 60 x 28 mm

Price Each

Order Code	Product Code	1+	4+
WX38698	05630470	£245.86	POA

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Test & Measurement

Stroboscopes

Fluke 820-2LED Stroboscope



FLUKE

NEW

- The Fluke 820-2 LED Stroboscope can be used for checking the rotational speed of machinery without physical contact
- It is also useful as an excellent diagnostic tool for both investigation and observation of potential mechanism failure in many types of machinery in a vast range of industries and in product / process research & development
- Stroboscopes are simple, easy to use tools to stop motion for measurement and diagnostic purposes. They identify running speed of rotating equipment without stopping the operation.
- A stroboscope is used to stop motion for diagnostic purposes: Parasitic oscillations, flaws, slippage or unwanted distortions Measure speed of rotation or frequency of a rotating shaft, speaker, or mechanical part Identify part numbers or other markings
- High intensity 7-LED array 4,800 Lux @ 6,000 FPM/30cm
- High efficiency LED solid-state light source with uniform flash characteristics allow for higher flash rates 30-300,000 FPM (flashes per minute)
- Digital pulse width modulation for exceptionally sharp images at high speeds
- Rugged, durable design utilizes solid-state LEDs with no filaments, gases, hollow cavities, or glass—(one meter drop)
- Quartz-accuracy control system provides high accuracy 0.02 % (± 1 digit)
- Multi-line LCD display
- Check the rotating speed of machinery without physical contact or need for reflective tape
- Advance or retard flash timing for viewing gear teeth, cutting surfaces, repeats, or "drifting" equipment
- Simple push button operation with 2x and $\div 2$ buttons for easy adjustment
- Adjustable Flash Duration For most applications standard flash duration works without adjustment. For high rpm or larger objects rotating with high surface speed, adjustable flash duration is needed. For high speed applications, objects may move during the brief period of a single flash, resulting in a blurred image. By decreasing flash duration, objects have less time to move and the image will appear sharper

Price Each

Order Code	Product Code	Description	1+
WX63875	820-2LED	Stroboscope	£675.00

SKF

- The SKF TKRS10 is a portable, easy-to-use stroboscope that allows the motion of rotating or reciprocating machinery to appear frozen, facilitating inspection without stopping the machine
- The bright flash allows better illumination of the application at a distance, giving a wider viewing area
- Flash rate is quick and easy to adjust using the variable dial rate. Allowing the required speed to be reached within a matter of seconds
- Phase shift mode for optimum inspection of gears, rolls, fans, pulleys. The feature of interest can be rotated to the correct position for inspection
- Easy to read LCD display
- Battery powered with long running time per charge (up to 2.5 hrs)
- Includes universal AC adaptor that can be used worldwide
- Technical Specification:-**
 - Flash rate range: 40-12,500 flashes per minute (FPM)
 - Flash rate accuracy: ± 0.5 FPM or $\pm 0.01\%$ of reading, whichever is greater
 - Flash setting resolution: 100 to 9999 FPM - 0.1FPM, 10,000 to 12,500 FPM - 1FPM
 - Tachometer range: 40 - 59,000 RPM
 - Tachometer accuracy: ± 0.5 RPM or $\pm 0.01\%$ of reading, whichever is greater
 - Flash tube life: 100 million flashes
 - Flash duration: 9-15 μ sec
 - Light power: 154 mJ per flash
 - Battery type: NiMH, rechargeable, removable
 - Display: 8 character by 2 line LCD, alpha-numeric
 - Display update: continuous
 - Display resolution: 100 to 9999 FPM - 0.1FPM, 10,000 to 12,500 FPM - 1FPM
 - External trigger input: 0-5V TTL type via stereo phono jack
 - Operating temperature: 10 °C to 40 °C (50 °F to 104 °F)

Price Each

Order Code	Product Code	1+	4+
WX38703 ‡	TKRS10	£562.68	POA

‡ Special delivery applies. Please call for details

SKF TKRS 20 Stroboscope



SKF

- Stroboscope TKRS 20 with remote flash sensor
- Low energy consuming LED light source lets the rechargeable power pack to typically operate for at least twelve hours
- Bright and powerful flash gives a good target illumination at a distance, with a focused viewing area, and is ideal for outdoor use
- Flash rates of up to 300 000 flashes per minute cover most high speed applications. For routine inspections, the powerful lamp mode is useful
- A remote optical sensor is included enabling the flash rate to be easily triggered, and also enables the stroboscope to be used as a tachometer
- Easy to read LCD display shows user settings, and enables the ten user programmable flash rate memories to be quickly recalled
- Using the optional cable TKRS C1, the TKRS 20 can be connected to a SKF Microlog

Flash rate range	30 to 300 000 flashes per minute (f/min.)
Optical sensor flash rate range	30 to 100 000 f/min.
Flash rate accuracy	± 1 f/min. or $\pm 0.01\%$ of reading, whichever is greater
Flash setting and display resolution	30 to 9 999 f/min.; 0.1 f/min., 10 000 to 300 000 f/min.; 1 f/min.
Tachometer range	30 to 300 000 r/min.
Tachometer accuracy	± 0.5 r/min. or $\pm 0.01\%$ of reading, whichever is greater
Flash source	LED
Flash duration	0.1°-5°

Light power	1 600 lux at 6 000 f/min. at 0.2 m (8 in.)
Power pack type	NiMH, rechargeable and removable
Power pack charge time	2-4 hours
Run time per charge	12 hours typical usage 6 hours with optical sensor
Battery charger AC input	100-240 V AC, 50/60 Hz
Display	8 character by 2 line LCD, alphanumeric
Display update	continuous
Controls	Power, x2, x1/2, phase shift, external trigger, pulse length and memory
External trigger input	0-5 V TTL type via stereo phono jack
EXTL. trigger to flash delay	5 ms maximum
Clock output 0-5 V TTL	Type signal via stereo phono jack
Weight	600 g (1 lb, 5 oz.)
Operating temperature	10 to 40 °C (50 to 104 °F)
Storage temperature	-20 to +45 °C (-4 to +113 °F)

Price Each

Order Code	Product Code	1+	4+
WX60967 ‡	TKRS20	£735.54	POA

‡ Special delivery applies. Please call for details

Mains Powered Xenon Stroboscope



NEW

- A lightweight mains powered stroboscope, which can be used to measure rotational speed of gears, fans, pumps and other motions
- Simply aim and synchronise its flash rate to the rotating object and then read the flash rate equal to rpm
- Ideal for fast moving production checks or fault finding without the need to stop the process, saving time for maintenance engineers
- 4 digit LED display located in front of the handle
- Rear control panel with on/off power button, range selection and coarse & fine adjustable flash rate
- High intensity 6500K xenon white flash tube with an 80° beam angle
- Impact-resistant ABS case with standard 1/4" camera bush for tripod mounting
- Microprocessor controlled LSI circuit and crystal control time base
- Continuous use from 5 to 30 minutes depending on FPM range
- Supplied with 1.75m detachable power lead
- Calibration Certificate Issued at 5 points: 100, 500, 1,000, 5,000 & 10,000FPM
- Range 100 to 10,000 flashes per minute (FPM)
- Resolution 1 FPM
- Accuracy ± 1 digit below 5,000 FPM, $\pm 0.05\%$ above
- Power 230V AC
- Dimensions 210 x 120 x 120 mm
- Weight 1Kg

Price Each

Order Code	Product Code	1+
WX53689 ‡	DS-10	Stroboscope £150.00
WX63876 ‡	CAL-DS	Traceable Cal Cert £65.00
WX53690 ‡	TP-1220R	Instrument Tripod £35.00

‡ Special delivery applies. Please call for details

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Test & Measurement

SKF TKRS10 Stroboscope



2130

Nationwide coverage, delivered locally same or next day – Tel: 0870 240 2100

BRAMMER

HVAC Instruments

Fluke HVAC Pro



FLUKE

- Two-in-one infrared and contact thermometer (K-type thermocouples) for HVAC/R professionals
- Used for scanning, electrical maintenance, electric motors, HVAC/R systems, steam systems, ducts, motors, radiant heating, pipes, corroded connections and wires
- Measurements can be made at a safe distance and no need for a ladder
- Preserves investment because it's compatible with existing K-type thermocouple probes
- Included velcro pipe probe and differential temperature function obtains quick, accurate measurements for superheat and sub-cooling. Previously, a two channel contact thermometer would have been required for this
- Light - just 12 ounces (34 g) and portable
- Single point laser sighting shows approximate centre of measurement area
- Min, Max, and Dif functions provide fast data to identify problems
- Three measurement techniques:
 - Spot: determine the absolute surface temperature of an object
 - Temperature differential: compare two spot measurements against each other
 - Scanning: detect changes along a wide or continuous region target
- Durable plastic storage case, Thermocouple K Velcro pipe probe and 2 AA batteries all included

Model	Fluke 561
Temperature range	-40 to 550°C (-40 to 1022° F)
Display Resolution	0.1°C (0.1° F) of reading
D:S (Distance to spot size)	12:01
Easy Emissivity Selector	Adjustable with three settings: Low (0.3) Medium (0.7) High (0.95)
Display Accuracy	±1.0% of reading
[Assumes ambient operating temp of 23°C(73°F) to 25°C(77°F)]	±1% of reading or ±1°C (±2°F) below 0°C/32°F / ±1°C (±2°F) ± 0.1°/1°
Response time	500 mSec (95% of reading)
Repeatability	±0.5% of reading or ±1°C (±2°F) whichever is greater
Spectral response	8 µm to 14 µm
Laser sighting	Single point laser
Laser shutoff	Laser turns off above ambient temperature of 40°C (104°F)
Laser power	Class 2(II) operation; Output <1mW / wavelength 630-670 nm
Relative humidity	10% to 90% RH non-condensing at <30°C (86°F)
Battery life (alkaline)	12 hours
Display hold	7 seconds
Operating temperature	0°C to 50°C 32°F to 120°F
MAX/MIN/DIF temperatures	Yes
Thermocouple Type K mini adapter input	YES compatible with standard K type probes with mini-connector.
Thermocouple Type K Velcro Pipe Probe	YES with a temperature range of 0°C to 100°C and accuracy of ±2.2°C
Thermocouple Type K probe total length	102 cm (40 in)

		Price Each	
Order Code	Product Code	1+	4+
WX38635 ‡	561 Pro Gun	£135.00	POA
WX38646 ‡	H6 Holster	£22.00	POA

‡ Special delivery applies. Please call for details

Air Flow Meters

Large-Area Vane Anemometer



- The compact testo 417 anemometer with built-in flow/temperature vane Ø 100 mm to measure flow speed, volume flow and temperature
- Accurate volume flow calculation thanks to easy input of duct area
- In addition, it is easy to switch to the current temperature reading
- Timed and multi-point mean calculation provide information on mean volume flow, flow speed and temperature readings
- Min/max values can also be shown in the display
- Display light
- Built-in Ø 100mm vane

Storage temperature	-40 to +85 °C
Operating temperature	0 to +50 °C
Battery type	9V block battery 6F22
Battery life	50 h
Weight	230 g
Dimensions	277 x 105 x 45 mm

		Price Each	
Order Code	Product Code	1+	4+
WX38693	05604170	£313.45	POA

‡ Special delivery applies. Please call for details

Compact Thermal Anemometer



- The compact anemometer, testo 425, with permanently attached thermal flow probe and telescopic handle
- Volume flow is shown directly in the display. Exact volume flow calculation thanks to easy input of duct area

- You can also switch to the current temperature reading
- Multi-point and timed mean calculation
- Min/Max and Hold function included
- Timed and multi-point mean calculation provide information on mean volume flow, flow speed and temperature reading
- Display light

Storage temperature	-40 to +85 °C
Operating temperature	-20 to +50 °C
Battery type	9V block battery
Battery life	20 h
Weight	285 g
Dimensions	182 x 64 x 40 mm

		Price Each	
Order Code	Product Code	1+	4+
WX42054	05604251	£405.53	POA

‡ Special delivery applies. Please call for details

Wind, Air Flow, Temperature & Humidity



- Pocket sized measurement technology combining wind, air velocity, temperature and humidity measuring device in one unit.
- Integrated 40mm vane
- Times mean value calculation
- Windchill factor calculation for outdoor areas
- Measurement units include m/s, km/h, mph, fpm, beaufort and knots

Testo 410-1 Wind or Air velocity and temperature
Testo 410-2 Wind or Air velocity and temperature and humidity

Function	Range	Accuracy
Air Velocity: m/s (meters per sec)	0.4 to 20 m/s	± (0.2m/s + 2% of m.v)
Temperature	°C / °F	± 0.5°C
Humidity (Testo 410-2 only)	0 to 100%rh	± 2.5%

		Price Each	
Order Code	Product Code	1+	4+
WX42052	05604101	£107.56	POA
WX42053	05604102	£158.87	POA

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Test & Measurement

Velocity Volume Thermo-Anemometer



NEW

- This remote vane thermo-anemometer measures air velocity, airflow volume and temperature
- The detachable 75mm vane has a 1.5m coiled connection cable and plug
- An Ideal Instrument for ventilation surveys, air conditioning, heating and environmental monitoring.
- 0.3 to 45m/sec x 0.01
- Measures air velocity in m/sec, ft/min, km/sec, knots or mph
- Measures volume in m³/min (CMM) or ft³/min (CFM)
- Measures temperature °C or °F
- 55mm Hi-Contrast LCD display with backlight and function indicators
- Dual Display for Velocity and Temperature
- 12 Segment Bargraph for Velocity
- Average multiple readings for velocity or flow volume for the last 30 readings
- Auto Power Off after 15 minutes of no activity
- Low Battery indicator
- Standard 1/4" camera bush for tripod mounting of instrument
- Supplied with hard carry case and battery
- 2 year warranty
- Calibration Certificate (Airflow) Issued at 3 points: 7.5, 15 and 22.5m/sec
- Calibration Certificate (Temperature) Issued at 2 points: 25°C & 30°C
- Temp Range -30° to 60°C, -22° to 140°F
- Accuracy ±1.5°C/±2.7°F
- Power 1 x 9V PP3 Alkaline Battery (LR-61)
- Dimensions 185 x 66 x 33mm
- Weight 311g

Range	m/sec	ft/min	mph	km/hr	knots	m³/min ft³/min
Minimum	0.3	60	0.6	1	0.5	0
Maximum	45	8850	100	162	85	99900
Resolution	0.01	1	0.1	0.1	0.1	
Accuracy	±(3%+0.1)	±(3%+0.1)	±(3%+0.1)	±(3%+0.1)	±(3%+0.1)	±(3%+0.1)

Price Each

Order Code	Product Code	1+
WX63877 ‡	ET-955 Anemometer	£125.00
WX63878 ‡	CAL-AN Traceable Cal Cert (Airflow)	£70.00
WX63879 ‡	CAL-ANT Traceable Cal Cert (Temperature)	£25.00
WX53690 ‡	TP-1220R Instrument Tripod	£35.00

‡ Special delivery applies. Please call for details

Hot Wire USB Logging Anemometer



- This hot wire thermal anemometer is ideal for low air velocity and volume measurement
- The slim plug in telescopic hotwire probe extends from 0.3m to 1m (inc handle) has a probe sensor head 9mmØ and is ideal for grill hoods and diffusers
- It is excellent for ventilation surveys, air conditioning, clean rooms, flow hoods, air balancing and environmental monitoring. USB interface for real time transfer of readings to a PC.
- 0.1 to 25m/sec x 0.01
- Measures air velocity in m/s, ft/min, km/h, knots & mph
- Measures air volume in m³/min or ft³/min
- Measures temperature °C, °F
- 58mm LCD display with Backlight and function indicators
- Data Hold & Min/Max for airflow and temperature
- Low Battery indicator
- Auto Power Off, can be user disabled
- USB interface for real time transfer of readings to a PC
- Mean point (average) over displayed elapsed time
- Standard 1/4" camera bush for tripod mounting
- Supplied with USB connection cable, software, hard carry case, telescopic hot wire probe & battery
- Dimensions 210 x 75 x 50mm unit 0.3 x 1m probe

Range	m/sec	ft/min	mph	km/hr	knots	m³/min ft³/min
Minimum	0.1	20	0.2	0.3	0.2	0
Maximum	25	4925	55.8	90	48.5	999.90
Resolution	0.01	1	1	0.1	0.1	
Accuracy	±5%					
Temp Range	0 to 50°C, 32 to 122°F					
Accuracy	1°C/1.8°F					
Power	9V PP3 Alkaline Battery					

Price Each

Order Code	Product Code	1+	3+
WX53556 ‡	AVM-8890	£195.00	POA

‡ Special delivery applies. Please call for details

Air Leak & Steam Trap Checker

Ultraprrobe 100 - Analogue



- The Ultraprrobe® 100 is a practical tool for leak detection
- Detects the ultrasound created by compressed air/gas leaks
- Use whilst plant in full operation
- Detect faulty steam traps
- Ultrasound is very directional
- Eight position sensitivity dial
- Bar graph display
- Supplied with headphones and carry case
- Warranted for five years
- Other models available including ATEX

Air leaks in industry are costly with around 30% of all the air produced in the UK is wasted as leaks. Generation of compressed air equates to 10% of the total industrial electricity used and just one 3mm hole could be costing over £600 a year in wasted energy. Ultraprrobe equipment can effectively reduce your energy bills by locating and engineers fixing air leaks.

Price Each

Order Code	Product Code	1+
WX43963 ‡	ULTRAPROBE-100	POA

‡ Special delivery applies. Please call for details

Cygscope R & RD - Ultrasonic Listening Device



CygScope R



CygScope RD

- 2 Models of the CygScope
- CygScope R is a analogue ultrasonic listening device
- Detects leaks that cost money easily, quickly and accurately
- Simple to use, low cost yet reliable system to reduce your energy costs effectively and dramatically
- Ideal for:
 - Compressed air or vacuum systems
 - Steam traps
 - Motor and rail vehicles - testing seals in cabin doors/boot/trunk
 - Checking leaks in cold storage tanks
 - Check fuel injection in diesel engines
- Specification details:
 - Operation Frequency Approx 40 KHz
 - Display LED 10 step Scale
 - Rechargeable batteries with charger approx 10 hours
 - Operating temperature -10 +50C
 - Environmental Protection IP20
 - Kit comes with Cyscope R
 - Ultrasonic Air Probe C50
 - Flexible cable for probe
 - Battery charger
 - High quality head phones
 - Directional probe
 - Transport case
 - Protective leather case

Price Each

Order Code	Product Code	1+
WX53574	009-7421/R Cygscope R	£1,802.00
WX53575 ‡	009-7422/RD Cygscope RD	£2,545.00

‡ Special delivery applies. Please call for details

- CygScope R is a digital ultrasonic listening device
- Detects leaks that cost money easily, quickly and accurately
- Simple to use, low cost yet reliable system to reduce your energy costs effectively and dramatically
- Ideal for:
 - Compressed air or vacuum systems
 - Steam Traps
 - Motor and rail vehicles: testing seals in cabins doors/boot/trunk
 - Cold storage tanks
 - Check fuel injection in diesel engines
- In Industry this product is used to verify steam pipe seals, seal integrity or fittings and condenser drains
- Searching for faults in electrical insulation
- Used in conjunction with contact probe can be used to in predictive maintenance of potential wear on rotating parts and bearing wear
- Specification details:
 - Operation Frequency Approx 40 KHz
 - Digital display on LCD with back light also LED 10 step scale
 - Rechargeable batteries with charger approx 10 hours
 - Operating temperature -10 +50C
 - Environmental Protection IP20
 - Kit comes with CygScope R
 - Ultrasonic Air Probe C50
 - Flexible cable for probe
 - Battery charger
 - High quality head phones
 - Directional probe
 - Transport case
 - Protective leather case

Ultrasonic Leak Detector TMSU 1



The TMSU 1 is suitable for detecting, tracing and diagnosing the source of all kinds of leaks, such as compressed air, gases, steam and vacuum systems. It can also be used to verify the correct operation of steam traps. It works like a microphone, but is sensitive only to high frequency ultrasound. The sensor transforms then the ultrasound into an audible frequency that can be heard through the headphones. The sensitive piezoelectric crystal in the sensor allows the end user to quickly guide the instrument to the loudest point which helps locate the leak location.

- Controls; Continuous or non-continuous operation switch. Silicone rubber button to control stop-start non-continuous operation and volume adjustment
- Amplification; 7 levels; 20, 30, 40, 50, 60, 70 and 80 dB
- Ultrasound Sensor; Open sensor with a 16 mm (1/2 in Ø) diameter (19 mm – 3/4 in Ø – exterior), central frequency of 40kHz
- Detected frequencies; 38,4 kHz, ± 2 kHz (-3 dB)
- Audio output; Stereo jack connector of 6,35 mm (1/4 in) (use only the headset supplied with the unit)
- Power; Two alkaline AA batteries, 1.5 V. Rechargeable batteries can also be used but the usage time will be reduced
- Usage time; ± 20 hours. This varies based on: including the charge of the battery in the detector, the level of amplification used and the quality of the batteries
- Body; Made with machined and assembled sheets of high impact polystyrene, shock resistant
- Dimensions; Body: 170 x 42 x 31 mm (6,70 x 1,65 x 1,22 in), flexible tube length: 400 mm (15,75 in)
- Weight; 412 grams with the batteries (14,53 oz)
- Operating temperature range; From -10° C to + 50° C / 14° F to 122° F

Price Each

Order Code	Product Code	1+
WX51151 ‡	TMSU-1	£841.13

‡ Special delivery applies. Please ask for details

Ultrasonic Leak Detection System and Stethoscope



- The UltraPro AG500 is a powerful ultrasonic leak detector and electronic stethoscope
- The system is used in construction, maintenance and manufacturing wherever precision gaseous leak detection or diagnostics are required
- UltraPro uses ultrasound technology to sense frequencies ranging from 18 to 42 kHz, which are converted into an audible sound
- The system is used to locate leaks in any gaseous system and to troubleshoot moving assemblies such as bearings, injectors, solenoids and valves
- UltraPro features a unique automatic gain control which filters the signal to provide the best signal-to-noise ratio, suppressing background noise and pinpointing leaks.
- The AG circuit simplifies operation, removing complicated adjustment knobs and filter switches
- UltraPro offers superior electronics with rugged industrial packaging and a protective rubberized case
- **Features:**
 - Simple operation
 - 10 element LED bar-graph display
 - Industrial rubber holster
 - Air and contact probes
 - Audio output with volume control
- **Common UltraPro Applications:**
 - Steam Traps
 - Vacuum/Air Leaks
 - Bearings/Valves
 - Pressure Leaks
 - Water Leaks
- **Specification**
 - Power: 9volt Battery
 - Battery Life: (typical) 20 hrs (continuous)
 - Displays: 10 element LED bar-graph.
 - Frequency Response: (kHz) 36-44
 - Audio Output: (kHz) 0 to 4
 - Construction: ABS and anodised aluminum with rubber holster
 - Dimensions: (mm) 150 x 100 x 38
 - Weight (g) 300

Price Each

Order Code	Product Code	1+
WX53609 ‡	ULTRAPRO-AG500	POA

‡ Special delivery applies. Please ask for details

Gas Monitoring

C090 Carbon Monoxide Meter



- A rapid responding carbon monoxide meter, ideal for checking safety
- A beeper gives audible indication, speeding up with CO concentration and becoming a continuous tone above 200 ppm.
- Max and Hold buttons allow one reading (or the highest) to be displayed over a period of time.
- Display: 3 1/2 digit liquid crystal display (LCD) with maximum reading of 1999 ppm
- Operating Environment: 0°C to 40°C (32°F to 105°F) at 15% to 90% relative humidity
- Storage Temperature: -20°C to 60°C (-4°F to 140°F), 0 to 80% R.H. with battery removed from meter
- Response Time: <70 sec to 90% of reading
- Initial Accuracy: ± 5% of reading ± 5ppm
- Average Measurement Capacity: (A reading is taken every 7 seconds and displays the average on screen)
- Normal Measurement Capacity: (current reading shown on screen)
- Supply: Standard 9V battery (PP3, NEDA 1604, IEC 6F22 006P) (included)
- Low battery indication
- Dimensions: 189 x 67 x 35mm
- Weight: 193g approx incl battery

Price Each

Order Code	Product Code	1+	3+
WX60968	C090	£128.09	POA

Pressure Meters

Differential Pressure Measurement



- Measuring range of 0 to 100 mbar
- Temperature compensation
- Magnetic base for hands free instrument mounting
- Flow velocity measurement
- Air density compensation

Includes:-

- Batteries (AAA x 2)
- Wrist strap
- Belt holder
- Protective Cap

Dimensions (inc cap) 119x46x25mm

Accuracy	Units
± 0.03 mbar (0 to 0.30mbar)	hPa, mbar, Pa, mmHg, 0, mmHg, inH ₂ O, psi, m/s, fpm
± 0.05 mbar (0.31 to 1 mbar)	
± (0.1 mbar + 1.5% of m.v.)	
(1.01 mbar to 100 mbar)	

Price Each

Order Code	Product Code	1+	4+
WX42047	05600510	£131.24	POA



- Absolute pressure accuracy ± 3 mbar
- Calculation of barometric pressure
- Barometric altitude measurement

Includes:-

- Batteries (AAA x 2)
- Wrist strap
- Belt holder
- Protective Cap
- Calibration protocol

Dimensions (inc cap) 119x46x25mm

Measuring range: 300 to 1,200 mbar Accuracy: ± 3.0 mbar

Units: hpa, mbar, Pa, mmHg
0, mmHg, inHg
0, psi, m, ft

Price Each

Order Code	Product Code	1+	4+
WX42048	05600511	£158.87	POA

Measuring Tools

Calibration Available



- Calibration is an essential part of the activities of any company if quality control is taken seriously
- Measurement to a consistently high level of accuracy can only be achieved if instruments are periodically calibrated against traceable standards
- Brammer can provide pre-UKAS calibration certification on many newly purchased products to meet this requirement in our supplier's environmentally controlled calibration laboratories
- So where you see the above logo featured on certain products; Brammer can offer a fully calibration certified version of that product

Books

Reference

Zeus precision charts



Roebuck

- Revised metric edition
- Covers and all pages have a plastic finish, so that they will not pick up dirt, oil, etc
- easily
- Contains data charts and reference tables for all engineering trades

Price Each

Order Code	Product Code	1+	6+
WX60969	231801	£4.71	£4.47

Rules, Tapes and Measures

Rules

Standard steel rules



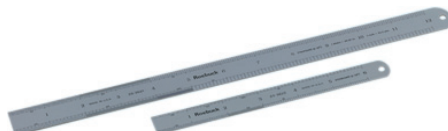
Roebuck

- EC class 1
- Manufactured from fine quality steel, hardened and tempered with a satin finish
- "D" end
- Graduated both sides
- Front 16ths, 32nds, 64ths, 10ths, 20ths, 50ths and 100ths
- Reverse side 0.5 and 1.0 millimetres to BS 4372/1968

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX60970	233620	150mm / 6"	19mm / 3/4"	£4.93	£4.68
WX60971	233621	300mm / 12"	25mm / 1"	£8.54	£8.11

Metric/English steel rules



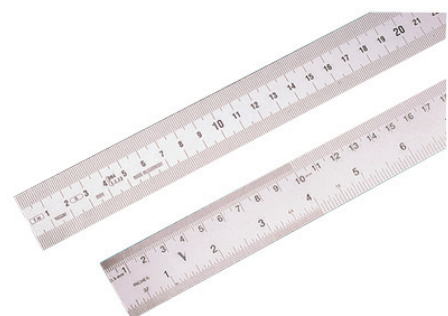
Roebuck

- EC Class 2
- Top edge: 0.5mm and 1mm, figured in cm
- Bottom edge: 16ths, 32nds, 64ths, figured in inches

Price Each

Order Code	Product Code	Length Metre	Length, Width x Inches Thickness	1+	6+
WX60972	032125	1 m	40 " 30 x 1 mm	£44.20	£41.99
WX60973	032126	1.5 m	60 " 30 x 1 mm	£88.16	£83.75
WX60974	032127	1.5 m	60 " 40 x 2 mm	£146.19	£138.88
WX60975	032128	2 m	80 " 30 x 1 mm	£89.58	£85.10

Metric steel rules



Roebuck

- EC Class 2
- Both edges: 1mm, figured in cm

Price Each

Order Code	Product Code	Length	width x Thickness	1+	6+
WX60976	032120	1 m	30 x 1 mm	£48.00	£45.60
WX60977	032121	1.5 m	30 x 1 mm	£72.16	£68.55
WX60978	032122	1.5 m	40 x 2 mm	£159.71	£151.72
WX60979	032123	2 m	30 x 1 mm	£103.33	£98.16
WX60980	032124	2 m	40 x 2 mm	£200.38	£190.36

Metric square end rules



Roebuck

- Manufactured from high quality steel and fully hardened and tempered with a non-glare satin chrome finish
- Graduations etched from precise glass masters for repeated accuracy
- Specifications: Rules graduated both sides: 1.0mm & 0.5mm
- Conform to EEC-Class
- Rigid and 1.0mm thick

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX60981	2017359	150 mm	19 mm	£7.93	£7.53
WX60982	2017360	300 mm	25 mm	£14.72	£13.98
WX60983	2017361	450 mm	29 mm	£24.44	£23.22
WX60984	2017362	600 mm	29 mm	£34.97	£33.22
WX60985	2017363	1000 mm	32 mm	£96.44	£91.62

English metric square end rules



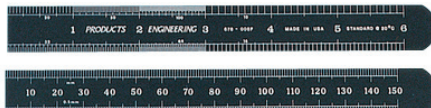
Roebuck

- Square end rules are manufactured from hardened and tempered high quality British steel and conform to BS 4372-1968 for accuracy
- Etched from precise glass masters with satin chrome finish and blackened graduations for wear resistance and non-glare viewing
- Front sidemarked 64ths and 32nds figured in inches
- Reverse side marked in 1.0mm and 0.5mm

Price Each

Order Code	Product Code	Description	1+	6+
WX60986	030550	150mm / 6in	£7.95	£7.56
WX60987	030551	300mm / 12in	£12.89	£12.25
WX60988	030552	450mm / 18in	£22.79	£21.65
WX60989	030553	600mm / 24in	£32.92	£31.28
WX60990	030554	900mm / 36in	£89.47	£85.00

Black chrome rules



Roebuck

- Manufactured from high quality British steel
- The rulers are hardened and tempered and have a satin chrome finish for durability and non-glare viewing
- "D" End style
- All rules are supplied in individual plastic wallets
- Front side is graduated in 10ths, 16ths, 20ths, 32nds, 50ths and 100ths
- reverse side graduated in 0.5mm and 1.0mm

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX60991	030144	15 mm / 6"	19 mm	£6.85	£6.51
WX60992	030145	300mm / 12"	25 mm	£12.58	£11.95

Tin coated steel rules



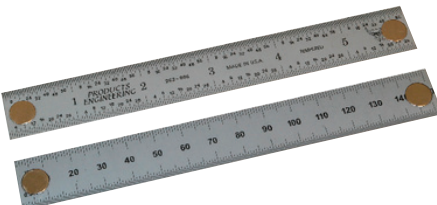
Roebuck

- Titanium nitride coated, RC80 hardness, for exceptional wear and visibility
- Long lasting, hard wearing, non-glare finish
- Scratch resistant microfine graduations with excellent clarity and contrast, 30% harder than standard

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX60993	030146	150mm / 6"	19 mm	£16.59	£15.76
WX60994	030147	300mm 12"	25 mm	£29.23	£27.77

Magnetic steel rules



Roebuck

- Magnetic rules contain encapsulated button magnets and are suitable for fixing to machine slides, guillotine blades and sheet metal
- Manufactured from hardened and tempered high quality British steel, they conform to BS 4372-1968 for accuracy
- Etched from precise glass masters with satin chrome finish and blackened graduations for wear resistance and non glare viewing
- Front side marked 64ths and 32nds: figured in inches
- Reverse side marked 1.0mm and 0.5mm: figured in millimetres

Price Each

Order Code	Product Code	Description	1+	6+
WX60995	030458	150mm / 6in	£16.67	£15.84
WX60996	030459	300mm / 12in	£33.32	£31.65
WX60997	030460	600mm / 24in	£69.45	£65.98
WX60998	030461	900mm / 48in	£144.02	£136.82
WX60999	030469	1200mm / 48in	£244.74	£232.50

Stainless Steel Rules

Metric

Metric/Imperial Steel Rules



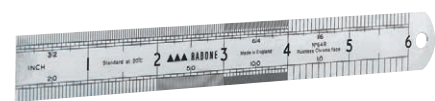
- Metric and Imperial Steel Rules
- Flexible and rigid options in 150mm and 300mm options
- 1mm Graduation

Price Each

Order Code	Product Code	Description	1+	3+
WX20343	182-105	150mmx-19mm, Rigid	£9.00	£8.55
WX20344	182-125	300mmx-25mm, Rigid	£19.00	£18.05
WX20345	182-205	150mmx12mm, Flexible	£6.83	£6.49
WX20346	182-225	300mmx12mm, Flexible	£11.87	£11.28

Rustless Steel Rules

Metric and Imperial Rustless Steel Rule



STANLEY

- Engineers precision steel rule
- Fully graduated in metric and imperial sizes
- Class 1 equivalent
- Metric: 0.5mm
- Imperial: 16ths/32nds/64ths/10ths/20ths/50ths/100ths

Price Each

Order Code	Product Code	Description	1+	10+
WX21066	0-35-400	150mmx19mm	£6.95	£6.53
WX21067	0-35-401	300mmx25mm	£11.70	£11.00
WX21069	0-35-406	1000mmx25mm	£29.45	£27.68
WX21070	0-35-432	150mmx12.5mm	£6.95	£6.53
WX21071	0-35-433	300mmx12.5mm, flexi	£11.70	£11.00

Folding Rules

2M Metre White folding Rule-10 Segments With Metal Ends



Roebuck

NEW

- Material: Glass fibre reinforced polyimide. Scratch, weather and chemical resistant.
- Joints: Playfree, wear resistant and maintenance free joint with steel spring pin for constant tension. Useful 90° snap-in-position.
- Scale: Deep embossed black scale in 1mm increments. Every 10cm is marked in red.
- Accuracy: CE conformity, EU standard accuracy class III.

Price Each

Order Code	Product Code	Length	1+	6+
WX63748	2525704	2 m/ 80in	£6.72	£6.38

Measurement -10 Segments with Metal Ends



Roebuck

NEW

- Material: Glass fibre reinforced polyimide. Scratch, weather and chemical resistant.
- Joints: Playfree, wear resistant and maintenance free joint with steel spring pin for constant tension. Useful 90° snap-in-position.
- Scale: Deep embossed black scale in 1mm increments. Every 10cm is marked in red.
- Accuracy: CE conformity, EU standard accuracy class III.

- Extra: Readable from both sides through a second backwards running scale (Recto Verso).
- Depth measurement with push-out depth gauge.
- Angle measurement with anchoring of depth gauge in fixation hole.

Price Each

Order Code	Product Code	Length	1+	6+
WX63748	2525704	2 m/ 80in	£6.72	£6.38

Straight Edges

Graduated



Roebuck

- A range of general purpose carbon steel straight edges
- Graduated in mm's on bevel edge

Price Each

Order Code	Product Code	Length	Width x Thickness	1+	6+
WX61000	031559	500 mm	40 x 5 mm	£57.05	£54.20
WX61001	031560	1000 mm	40 x 5 mm	£110.01	£104.51
WX61002	031561	2000 mm	40 x 5 mm	£237.68	£225.80

General purpose straight edge

Ungraduated



Roebuck

- A range of general purpose carbon steel straight edges

Price Each

Order Code	Product Code	Length	Width x Thickness	1+	6+
WX61003	031555	500 mm	40 x 5 mm	£38.10	£36.20
WX61004	031556	1000 mm	40 x 5 mm	£73.10	£69.45
WX61005	031557	1500 mm	40 x 5 mm	£114.82	£109.08
WX61006	031558	2000 mm	40 x 5 mm	£151.16	£143.60

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Test & Measurement

Tapes

Tape Measures Short Series

Hi-vis tape measures



Roebuck

- Distinct high visibility colour makes it easier to find on-site
- Compact design for ease of use
- Durable impact resistant case with tape return bumper
- Tylong coated blade to ensure superior wear resistance compared to standard lacquered blades
- True zero end hook attached by 2 rivets
- Handy carrying strap and belt clip included
- Class II accuracy

Order Code	Product Code	Colour	Length	Width	Price Each	
					1+	6+
WX61007	231707	Green	5m/16'	19 mm	£3.38	£3.21
WX61008	231708B	Orange	5m/16'	19 mm	£3.38	£3.21

2M Measuring Tape



Roebuck

NEW

- 2m Measuring tape.
- ABS case .
- EC Clas 2 Blade 11.
- Matt yellow non-reflective nylon coated blade

- Black belt clip and end hook.
- Vertical stand out 1.8M Horizontal stand out 1.4M.

Order Code	Product Code	Length	Price Each	
			1+	6+
WX63749	2525685	2m/6'	£1.86	£1.77

Workshop tape measures



Roebuck

- Compact design for ease of use
- Durable impact resistant case with tape return bumper
- Tylong coated blade to ensure superior wear resistance compared to standard lacquered blades
- 25mm wide blade option stands out over 2m
- True zero end hook attached by 2 rivets
- Handy carrying strap and belt clip included
- Class II accuracy

Order Code	Product Code	Length	Width	Price Each	
				1+	6+
WX61009	231690	3m/10'	13 mm	£2.20	£2.09
WX61010	231695	5m/16'	19 mm	£3.70	£3.52
WX61011	231696	8m/26'	25 mm	£7.00	£6.65

Professional tape measures



Roebuck

- Chrome plated, impact resistant plastic case with tape return bumper
- Compact design for ease of use
- Tylong coated blade to ensure superior wear resistance compared to standard lacquered blades
- 25mm blade option stands out over 2m
- True zero end hook attached by 2 rivets
- Handy carrying strap and belt clip included
- Class II accuracy

Order Code	Product Code	Length	Width	Price Each	
				1+	6+
WX61012	231697	3m/10'	13 mm	£5.20	£4.94
WX61013	231699	5m/16'	19 mm	£8.00	£7.60
WX61014	231700	8m/26'	25 mm	£12.20	£11.59
WX61015	231706	10m/33'	25 mm	£14.00	£13.30

Soft grip tape measures



Roebuck

- All round grip for extra control and durability
- Tape return bumper
- Tylong coated blade to ensure superior wear resistance compared to standard lacquered blades
- 25mm wide blade option stands out over 2 metres
- True zero end hook attached by 2 rivets
- Handle carry strap and belt clip
- Class II accuracy

Order Code	Product Code	Length	Width	Price Each	
				1+	6+
WX61016	231728	5m/16'	19 mm	£4.20	£3.99
WX61017	231729	8m/26'	25 mm	£7.50	£7.13

Measuring Tapes



Roebuck

- Stainless Steel Case plus black Rubber
- Two Stops
- Magnetic Tip
- MID Blade (11)
- Nylon Coated Blade
- Cloth Wrist Strap

Order Code	Product Code	Tape Length	Price Each	
			1+	6+
WX61018	2521608	3 Metre	£6.60	£6.27
WX61019	2521609	5 Metre	£9.50	£9.03
WX61020	2521610	8 Metre	£15.10	£14.35

Tape Measures

Magnetic Tip Stainless Steel Tape Measures



- The top models of pocket tape measures are fitted with a magnetic tip and have an anti-reflective coating on the scale for precise reading
- The Bahco MTS is also made entirely of rust-proof materials so that it can be used in harsh environments
- Bahco's new tape measures, the company's first ever, are aimed at professionals
- Many of Bahco's measuring tapes have graduations on both sides of the blade for precise reading of the scale in all situations and the magnetic tip makes building work with metal structures, for example, easier
- You only need to attach the tip to a metal frame and then pull the tape out to the other measurement point
- It is also possible to pick up lost metallic objects such as screws and the like that have been dropped using the tape's magnetic tip
- The blade is also stable when being pulled out thanks to its much greater width
- The new tape measures are of "Bahco class" and have many new and innovative features which stand out
- Automatic blade locking for quick and easy measuring
- Fingertip, sensitive control for blade retraction
- Blade width 25mm

Order Code	Product Code	Description	Price Each	
			1+	6+
WX45614	MTS-5-25-E	5M	£22.44	£21.09
WX45615	MTS-8-25-E	8M	£27.71	£26.05

Tape Measures



STANLEY

- Rubber over-moulded strip for comfort and grip
- High impact ABS housing for strength and durability
- Forward slide lock mechanism
- Versatile Tru-Zero end hook with 2 and 3 rivet assembly
- Nylon coated blade
- Tape sizes:
3m tape: (10ft) x 12.7mm
5m tape: (16ft) x 19mm
8m tape: (26ft) x 25mm

Price Each

Order Code	Product Code	Description	1+	6+
WX39944	0-30-686	3m (10ft)	£3.26	£3.06
WX35184	0-30-696	5m (16ft)	£5.14	£4.83
WX35182	0-30-656	8m (26ft)	£9.82	£9.23

Standard Tape Measures



IRWIN Industrial Tools

- Plastic case with Pro-Touch grip
- Sliding lock
- Acrylic coated blade
- Blade Stand out 3m/10ft 1.2m
- Blade Stand out 5m/16ft 1.8m
- Blade Stand out 8m/26ft 2.3m

Price Each

Order Code	Product Code	Blade Length	Blade Width	1+	6+
WX61021	10508055	3m/10ft	13mm	£2.42	£2.27
WX61022	10508056	5m/16ft	19mm	£4.20	£3.95
WX63750	10507789	8m/26ft	25mm	£7.87	£7.40

Professional Tape Measures



IRWIN Industrial Tools

- Plastic case with full Pro-Touch grip
- Fast lock blade hold
- Nylon coated blade
- 2x life of Standard Irwin blade coating
- Double sided Imperial/Metric blade print
- Hook magnets
- Extended length of hook panel for durability
- Blade Stand out 3m/10ft 1.4m
- Blade Stand out 5m/16ft 1.8m
- Blade Stand out 8m/26ft 2.3m

Price Each

Order Code	Product Code	Blade Length	Blade Width	1+	6+
WX61024	10507793	3m/10ft	16mm	£5.70	£5.36
WX61025	10508062	5m/16ft	19mm	£10.32	£9.70
WX61026	10508063	8m/26ft	25mm	£11.59	£10.89

Powerlock BladeArmor™



STANLEY

- BladeArmor™ coating on the first 6" maximizes durability of hook end
- Chrome plated die-cast case
- Entire blade coated with Mylar® polyester film for added durability
- True zero hook - compensates accurately for internal and external measurements
- Three-rivet, corrosion-resistant hook moves for accurate inside/outside measurements - 40% stronger than a 2 rivet hook construction
- Forward blade lock design simplifies locking and unlocking the blade
- Class II accuracy
- Positive blade lock
- Belt clip

Price Each

Order Code	Product Code	Description	1+	6+
WX38689	0-33-526	8m (26ft)	£13.67	£12.85

Powerlock Tapes



STANLEY

- Chrome plated plastic case
- Positive easy locking
- Mylar coated blade for long life
- Tru-Zero hook for accurate readings
- Supplied complete with belt clip
- Tapes give metric and imperial readings
- Class II accuracy
- Tape sizes:
3m Tape: (10ft) x 12.7mm
5m Tape: (16ft) x 19mm
10m Tape: (33ft) x 25mm

Price Each

Order Code	Product Code	Description	1+	6+
WX42015	0-33-523	3m Tape	£5.98	£5.62
WX43975	0-33-553	5m Tape	£10.25	£9.64
WX21053	0-33-443	10m Tape	£16.23	£15.26

XP Tape Measures



IRWIN Industrial Tools

- Plastic case with full Pro-Touch grip & steel side panels for added protection
- Fast lock blade hold
- Nylon sleeved blade
- 20x life of Standard Irwin blade coating
- Double sided Imperial/Metric blade print
- Double hook
- Extended length of hook panel with 3 rivets for durability

- Blade Stand out 5m/16ft 2.3m
- Blade Stand out 8m/26ft 2.5m

Price Each

Order Code	Product Code	Blade Length	Blade Width	1+	6+
WX61027	10507800	5m/16ft	25mm	£14.58	£13.71
WX61028	10507801	8m/26ft	27mm	£19.22	£18.07

FatMax - BladeArmour



STANLEY FatMax

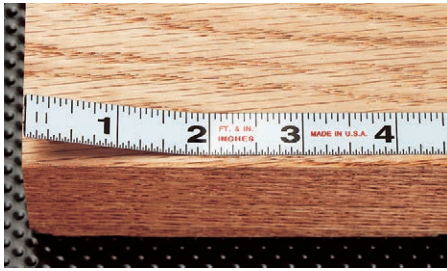
- Extra wide blade - 32mm gives up to 3.35m (11 ft) of 'stand out' for easy reading
- 'BladeArmour' Industrial Coating for maximum durability
- Impact resistant cushion grip
- Multi-function hook grabs on the side, top and bottom
- 3 Rivet end hook - 40% stronger than a 2 rivet hook
- Tru-Zero compensates for accurate internal or external measurements
- Mylar coated blade for long life - greater abrasion resistance
- Positive Blade lock
- Tape gives metric and imperial readings
- Class II accuracy
- Tape sizes:
5m Tape: (16ft) x 32mm
8m Tape: (26ft) x 32mm

Price Each

Order Code	Product Code	Description	1+	4+
WX21050	0-33-719	5m Tape	£16.45	£15.46
WX21059	0-33-726	8m Tape	£20.10	£18.89

Need a sturdy toolbox? See our Storage Equipment section

Measure Stix™ Steel Measuring Tape with adhesive backing



Starrett

- Tape measure sticks to almost any work surface for convenient, at-a-glance measurements
- High quality precision steel rule is flat with permanent adhesive back
- Cut to size with scissors
- Mount on workbenches, saw tables, drafting tables, etc

Price Each

Order Code	Product Code	Description	1+	5+
WX43976	SM44ME	1/2" x 4' (13 mm x 1.2 m)	£4.01	£3.77
WX43977	SM412ME	1/2" x 12' (13 mm x 4 m)	£5.24	£4.93
WX43978	SM66ME	3/4" x 6' (19 mm x 2 m)	£4.67	£4.39

Long Measuring Tapes

Open frame tapes



Roebuck

- Measuring tape with PVC coated glass fibre blade
- Flexible and extremely strong
- Rust free, rot proof and water resistant to most common chemicals
- Electrically non-conductive when dry
- Graduated on both sides
- Imperial on one side and metric on the other
- Folding winder handle
- Frame constructed from strong black ABS which is extremely tough and impact resistant

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX61029	231704	30m/100'	13 mm	£11.22	£10.66
WX61030	231705	50m/165'	13 mm	£20.91	£19.87

Open Fibreglass Tapes



STANLEY

- 26 strand 12mm wide blade
- Crystal clear graduations on an easy clean surface
- Metric and imperial blade printed both sides
- Bi-material handle and shaped winder for ease of use
- Class III accuracy
- Tape size 30m (100ft) x 12.7mm

Price Each

Order Code	Product Code	Description	1+	4+
WX21064	2-34-791	30m Tape	£17.21	£16.18

Closed Fibreglass Tapes



STANLEY

- 26 strand 12mm wide blade
- 2 colour graduations allowing easy reading
- High impact ABS case
- Folding handle for storage
- Class III accuracy
- 30m tape: (100ft) x 12.7mm

Price Each

Order Code	Product Code	Description	1+	6+
WX21063	0-34-262	30m (100')	£11.33	£10.65

Diameter/Circumference Tapes

Circumference Tapes



- Measuring tapes for outer diameters
- Laser-scaled 1/1mm graduation DIN 866
- Vernier 0.05mm
- In Black coated spring steel (maximum contrast) and Stainless spring steel

Price Each

Order Code	Product Code	Description	1+	2+
WX53610	5285-301	15-115 mm, Blk	£131.20	£124.64
WX53611	5285-302	100-230 mm, Blk	£185.60	£176.32
WX53612	5285-303	200-330 mm, Blk	£226.70	£215.37
WX53613	5285-304	300-620 mm, Blk	£247.48	£235.11

Order Code	Product Code	Description	1+	2+
WX53614	5285-401	15-115 mm, SS	£103.74	£98.55
WX53615	5285-402	100-230 mm, SS	£155.72	£147.93
WX53616	5285-403	200-330 mm, SS	£164.28	£156.07
WX53617	5285-404	300-620 mm, SS	£212.28	£201.67

Circumference & Diameter Tapes



- Circumference tapes for outer Ø and circumference
- Laser-scaled 1/1mm graduation DIN 866
- Cross section 16 x 0.2mm
- Vernier 0.1mm
- In spring steel

Price Each

Order Code	Product Code	Dia mm	Circ mm	1+	2+
WX53618	5285-101	20-300	60-950	£64.65	£61.42
WX53619	5285-102	300-700	940-2200	£78.29	£74.38
WX53620	5285-103	700-1100	2190-3460	£95.57	£90.79
WX53621	5285-104	1100-1500	3450-4720	£118.40	£112.48
WX53622	5285-105	1500-1900	4710-5980	£142.92	£135.77
WX53623	5285-106	1900-2300	5960-7230	£160.00	£152.00
WX53624	5285-107	2300-2700	7220-8500	£261.32	£248.25
WX53625	5285-108	2700-3100	8480-9760	£280.52	£266.49
WX53626	5285-109	3100-3500	9730-11010	£331.72	£315.13

Chalk Lines

Chalk Line - 30m



STANLEY

High impact ABS case for strength & durability. Sliding door for quick and easy chalk refill. Stainless steel end hook - corrosion resistant. 30g chalk capacity. Line break to be used vertically as a plumb bob.

Price Each

Order Code	Product Code	Description	1+	6+
WX42018	0-47-440	Chalk Line 30m	£6.84	£6.43

FatMax XL™ Chalk Line & Chalk



- Patented ChalkView™ case means you can see exactly how much chalk you have left
- 5:1 gear ratio fast rewind
- 3 x line abrasion resistance of traditional chalk reels
- Quick reel out release button to prevent handle spinning
- Handle locks into case to hold string in place
- Can be used vertically as a plumb bob
- Durable die cast aluminium case with belt clip
- Contains 30m (100ft) of polyester/nylon string
- Supplied with 4oz of blue chalk

Price Each

Order Code	Product Code	Description	1+	6+
WX42040	5-47-482	Chalk Line	£17.97	£16.89

Squares & Angle Measurement

Squares

Workshop grade B engineers squares



Roebuck

- Conforms to BS 939:1977, grade B
- Manufactured to close tolerances in high grade steel
- Both blade and stock are ground and polished with the blade being hardened and tempered

Price Each

Order Code	Product Code	Size mm	Size Inch	1+	6+
WX61034	233005	75	3	£20.42	£19.40
WX61035	233006B	100	4	£22.31	£21.19
WX61036	233007	150	6	£24.23	£23.02
WX61037	233008	225	9	£52.70	£50.07
WX61038	233009	300	12	£67.57	£64.19

Engineer's Squares

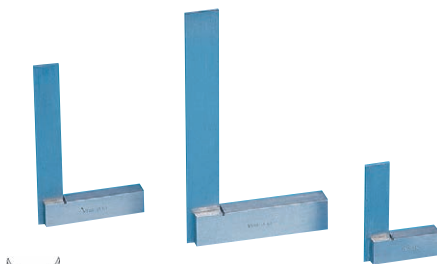


- Comply with BS939
- Precision ground blade and stock
- Blind rivetted construction
- Hardened and tempered blades

Price Each

Order Code	Product Code	Description	1+	3+
WX42000	400/3	75mm/3"	£22.95	£21.57
WX42001	400/4	100mm/4"	£22.95	£21.57
WX42002	400/6	150mm/6"	£28.81	£27.08
WX43985	400/9	225mm/9"	£60.52	£56.89
WX43986	400/12	300mm/12"	£77.68	£73.02

4 Piece Engineer's Square Set

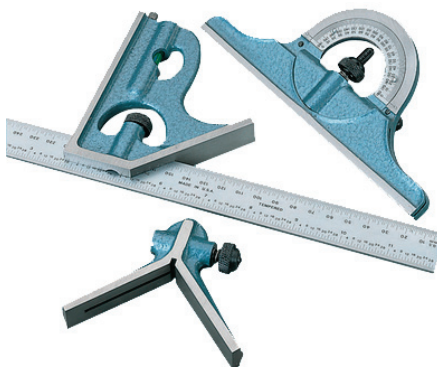


- Manufactured from high quality steel
- Beam and blade ground and lapped for accuracy
- Blade is hardened and tempered
- Stated blade length is from the inner edge of the stock to the blade tip
- 4 Piece set contains: 2", 3", 4" and 6"

Price Each

Order Code	Product Code	Description	1+	3+
WX35178	7000-54B	4 Pc Set	£83.70	£79.52

Combination Square



Roebuck

- The square and centre heads are of hardened steel
- Protractor head is reversible and is graduated 0° to 180° in both directions
- All heads have blue stove enamelled hammer finish with accurately ground working surfaces
- The 300mm/12in blade is fully tempered and hardened
- Satin chrome finish gives exceptional clarity to the very fine graduations and resists abrasion

Price Each

Order Code	Product Code	Description	1+	6+
WX61039	031550	Combination set	£120.08	£114.07
WX61040	030585	Square Head	£48.28	£45.87
WX61041	030586	Centre Head	£36.61	£34.78
WX61042	030587	Protractor Head	£47.40	£45.03
WX61043	030588	Combination Blade 300mm / 12in	£30.28	£28.77
WX61044	030078	Part A clamp screw	£4.63	£4.40

**For a full range
of hand tools,
see our Hand
Tools section**

360° Precision Combination Square



- Manufactured to BS Standard
- Protractor has full 360°
- Scale graduated 0 - 180° - 0
- Fully hardened and ground datum faces to resist wear
- Fully hardened and tempered precision rule with deeply etched graduations on both sides for ease of reading and long life
- Choice of 2 rule sizes
- Protractor, square and centre heads available separately

Price Each

Order Code	Product Code		1+	3+
WX35172	CSME12	Full Set	£163.00	£153.22

Range: Full Set

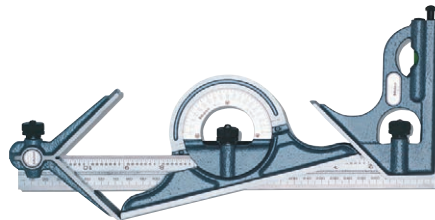
WX35173	CSRME12	300mm/12" Rule	£31.50	£29.61
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Graduation: 0.5mm every 10mm / 32nds & 64ths every 1/8"

WX35174	CSRME24	600mm/24" Rule	£53.00	£49.82
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Graduation: 0.5mm every 10mm / 32nds & 64ths every 1/8"

Combination Square



- 3 measuring heads attached to a stainless steel rule allowing measurements of various workpieces
- Square head is used to set the rule at 90° or 45° to the edge of the workpiece
- Centre head is used to locate centres of round workpieces
- Protractor head is used to set the rule to a desired angle

Price Each

Order Code	Product Code		1+	3+
WX20342	180-907		£185.00	£175.75

Combination Square



- Matt black metal stock with machined faces, centre reversible protractor and brass adjusting screws
- Protractor incorporates a spirit level and is clearly graduated 0°-180° in both directions
- Stock incorporates spirit level and scribe. Aluminium blade is graduated mm and 1/16" one side and 1/2mm and 1/32" on the other

Price Each

Order Code	Product Code		1+	3+
WX35103	34704		£38.92	£36.58

Double Squares



- Blade is hardened, tempered and chrome plated for longer life
- Blade is adjustable for position in the accurately ground cast stock
- Stock can also be used as a parallel
- Graduation reading: F: 32nds & 0.5mm R: 64ths & 1.0mm

Price Each

Order Code	Product Code	Description	1+	3+
WX35179	7104-264	100mm/4"	£39.33	£37.36
WX35180	7105-266	150mm/6"	£44.00	£41.80

Carpenters square



Roebuck

- Blue stove enamelled hammer finish head of hardened steel
- 300mm/12in blade is graduated in imperial and metric with ground edges and ends

Price Each

Order Code	Product Code	Description	1+	6+
WX61045	031551	Carpenters square	£19.69	£18.71
WX61044	030078	Part A clamp screw	£4.63	£4.40

Angle Measurement

Universal Bevel Protractor Series 187



Roebuck

- Dial face and vernier in satin chrome,
- Magnifier for easy reading of vernier scale, p
- Protractor dial guaranteed 360 x 1 degree,
- Vernier scale reads to 5 minutes of arc,
- Blade length is 150mm,
- Blades made from alloy steel, hardened & ground
- 1 x right angle accessory

Price Each

Order Code	Product Code	1+	6+
WX61046	030640	£94.74	£90.00

Universal Bevel Protractor Series 187



Available

Mitutoyo

- Vernier Protractor with a minimum reading of 5 minutes
- High angle gauge for measurements of machines moulds and jigs etc
- Ideal for use as a reference when assembling or machining
- Supplied with 300mm rule magnifier and a holder

Price Each

Order Code	Product Code	1+	3+
WX20352	187-908	£182.70	£173.57

Digital Mini-Mag Level



- Embedded magnets on 2 sides
- Measuring range 360° (4 x 90°)
- Resolution 0.05°
- Accuracy +/- 0.2°
- Standard 9V battery
- Dimensions: L60mm x H60mm x W35mm

Price Each

Order Code	Product Code	Description	1+	3+
WX43987	570-01	Digital Mini Level (Mag-netic)	£56.00	£52.64

Digital Protractor



Mitutoyo

Available

- Full range 360° protractor
- Machined aluminium frame
- Alternative reference (zero)
- Hold function
- Display reverses when tilted past 90°
- Battery life approximately 500 hours
- Resolution of 0.1 degrees

Price Each

Order Code	Product Code	1+	3+
WX20372	950-315	£267.96	£254.56

Electronic Level



Roebuck

- An electronic digital LCD display inclinometer which can be used independently or affixed to machinery or straight edges
- Display angle (degrees) or inclination (%)
- Audible chime that indicates plumb and level
- User calibration possible
- LCD display operates through full 360° and display 0-90° or 0-100%
- Display inverts automatically to allow easy reading at any angle
- Auto power shut off after approx. 6 minutes
- Dimensions: 168 x 54 x 36mm

Price Each

Order Code	Product Code	1+	6+
WX61047	1370720	£84.29	£80.08

PRO360 Digital Inclinometer



- The PRO 360 Digital Protractor is a revolutionary measuring tool that provides an immediate, digital reading of all angles in a 360° range
- The frame is grooved along the bottom surface to facilitate use with round objects such as pipes or shafts and incorporates threaded holes on the bottom for rigid attachment if desired
- The front panel buttons can be used to capture desired readings or to designate an alternate reference surface from which subsequent angles are then measured
- The unit can also be easily recalibrated in the field to factory accuracy using any available flat surface
- The unit operates for up to 500 hours on a single 9V battery
- Measures over full 360° range
- Standard reference = 0.00°
- ALT ZERO' button for differential readings
- HOLD' button to freeze reading
- Simple user re-calibration procedure to restore factory accuracy
- Precision machined aluminium frame
- Automatic shutdown for power save (can be disabled)
- A precision machined aluminium frame provides a rigid, lightweight, ultraprecise platform for extremely accurate measurements
- Resolution 0.01° (±10° from level)
- 0.1° (Rest of range)
- Accuracy ±0.1° (±10° from level)
- ±0.1° (±10° from plumb)
- ±0.2° (Rest of range)
- Repeatability ±0.1°
- Time Constant 0.4 seconds
- Power 9V PP3 Battery
- Serial Port None
- Dimensions; width 152.8mm, height 48.3mm, depth 30.9mm
- Weight 295g
- Temperature Range; operating 5 to 50°C, storage -20 to 65°C

Price Each

Order Code	Product Code	Description	1+	3+
WX45629 ‡	PRO360L	Inclinometer	£43.25	£40.66

2 Axis Digital Electronic Inclinometer



level developments

- Dual axis (x-y) or single axis (x) operation
- Digital graphical LCD display with back light
- High accuracy, 0.01° resolution, ±30° range
- RS232 digital interface
- Built in Li-Ion battery (charger supplied)
- Measurement scale switchable between degrees or mm/m
- Measuring range : ±30°
- Resolution : 0.01°
- Accuracy : ±0.05° or 1% of measured value
- Response Time : <1.0 second
- Operating Temp. : 0-45°C
- Power : Built in Li-Ion (3.7V)
- Battery Life : 100 hours
- Output Format : RS232 (9600-N-8-1)
- Weight : 250g
- Size : 115 x 62 x 29mm
- LCD : 128x64 pixels with backlight

Price Each

Order Code	Product Code	Description	1+	3+
WX45628	LD-2M	Inclinometer	£216.29	£203.31

Exact Angle Meter



Starrett

- This angle meter offers a fast, easy and inexpensive way to measure angles
- Large, readable scale for accurate readings from 0-90° in any quadrant
- Magnetic base frees hands when used on ferrous surfaces
- Measures any angle for pitch or slope
- Handy rise, run, angle, and pitch information on back of tool

Price Each

Order Code	Product Code	Description	1+	4+
WX42045	AM-2	Angle Meter	£23.78	£22.35

Parallel & Block Sets

10 Pair Parallel Set



Roebuck

- 10 pairs precision ground parallel set in moulded plastic case, consisting of the following heights 1/2, 5/8, 3/4, 7/8, 1-1/8, 1-1/4, 1-3/8, 1-1/2, 1-5/8
- All parallels 1/8 in thick x 6 in length
- Manufactured from hardened steel

Price Each

Order Code	Product Code	1+	6+
WX61048	030243	£57.10	£54.25

Parallel Set



- Comprises of 10 pairs of hardened & ground parallels
- 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2" & 1-5/8"
- Parallelism accuracy .0002"
- Matched pair accuracy .0003"
- Length = 6", Width = 1/8"

Price Each

Order Code	Product Code	Description	1+	3+
WX35115	52-437-010U	Set of 10	£56.67	£53.84

Metal & Wire Detection

IntelliLaser Pro



STANLEY

- Multi-depth detection of studs at 12, 25 and 38mm
- Built in laser & additional laser pod attachment
- Audible tone & graphic display on detection of studs
- Backlit LCD screen
- Continuous live wire detection
- Laser unit mounts to wall for hands free operation.

Price Each

Order Code	Product Code	Description	1+	3+
WX42021	0-77-500	IntelliLaser Pro	£67.64	£63.58

Laser Rangefinders

Fluke Distance Meter



FLUKE

- Now all types of users can reach beyond the limitations of the common tape measure to measure farther, with greater accuracy in more situations.
- They can perform those measurements with the Fluke accuracy, durability and reliability that professionals trust.
- The new Fluke family of laser distance meters offers features and functions that are equal to or better than competitive laser meters

- Fluke professional 414D - 50M / 165FT Accuracy ± 2mm
Easy, automatic math for area and volume, add and subtract with ease

- Fluke advanced 419D - 80M / 260FT Accuracy ± 1mm
3-line display plus storage for 20 complete displays
Tripod mountable

- Fluke ultimate 424D - 110M / 330FT Accuracy ± 1mm
Feature-rich meter includes tilt sensor for hard-to-reach measurements, corner angle feature, compass and more

Price Each

Order Code	Product Code	Description	1+
WX61049	414D	Laser Distance Meter	£101.00
WX61050	419D	Laser Distance Meter	£189.00
WX61051	424D	Laser Distance Meter	£283.00

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Test & Measurement

Distance Estimator with Laser Pointer



DRAPER

- Expert quality, measures and calculates area, volume, depth and length of objects
- Distance range 610mm - 12m (2 - 40ft)
- Features include 0-90° adjustable head allows measurements to be easily made from floors, built-in calculator, LCD display, audible indicator, laser pointer and wrist strap
- Powered by a PP3 size battery (not included)
- A detailed instruction leaflet is enclosed with each tool
- Measuring range 0.6-15m / 2-50ft

Price Each

Order Code	Product Code	Description	1+	6+
WX38623	73968	12m	£40.21	£37.80

Rangefinder GLM 250 VF Professional



BOSCH

- The laser rangefinder with the longest range
- Ideal for outdoor use: integrated telescopic viewfinder for optimum visibility of the laser point up to a distance of 250 m
- Maximum measurement performance and precision, even in adverse lighting conditions, due to large glass lens and ceramic optics carrier
- Numerous easy-to-operate measurement functions for fast and accurate calculation of distances, areas and volumes
- Robust for use on the construction site due to dust and splash protection of IP54
- Laser diode: 635 nm, < 1 mW
- Laser class: 2
- Measurement accuracy, typical: ± 1 mm
- Measurement time, typical: < 0.5 s
- Measuring time, max.: 4 s
- Power supply: 4 x 1.5 V LR03 (AAA)
- Automatic deactivation: 4 mins
- Weight, approx.: 0.24 kg
- Length: 120 mm, width: 66 mm, height: 37 mm
- Units of measure: m/cm/mm
- Memory capacity (values): 30
- Battery lifetime, individual measurements, approx.: 30.000
- Battery lifetime, operating time, approx.: 5 h
- Integrated telescopic viewfinder
- Carrying strap
- 4 x 1.5 V batteries
- Protective bag

Price Each

Order Code	Product Code	Description	1+	3+
WX53563	GLM250VF	250m	£257.00	£251.86

TLM210i Laser Measure



STANLEY

- Accuracy is +/- 1.0mm over entire range
- Range of 5cm to 100m for wide range of applications
- One person operation means greater productivity
- Easy to take measurements in busy or out-of-reach areas
- Inclination sensor
- Auto switch-off
- Calculator functions - addition, subtraction, area, volume, trapezoid and pythagoras
- Back-lit screen easy to read
- Memory function - stores last 19 readings
- Stake out function to calculate constant distances for marking out
- 2 x AAA Batteries (not supplied)

Price Each

Order Code	Product Code	Description	1+	6+
WX43991	1-77-922	100m Laser Measure	£327.86	£308.19

DW03050 Laser Distance Measure 50m



DEWALT

NEW

- Laser distance measurer (LDM) manufactured to withstand the inevitable job site drops and falls on the Job site
- It has a range of up to 50m and an accuracy of +/- 1.5mm
- Common end-user functions : linear meter readings, surface and volume calculations. It will add or subtract readings and calculate distance in Metric and Imperial.
- The user can select the unit to continually measure which allows layout applications.
- Pythagoras indirect height function will allow to measure distances even when point A and/or point B isn't accessible for linear measurement
- Unit stores last 5 measurements
- Laser class 2
- Levelling Accuracy +/- 1.5mm/m
- Number of beams -1
- Indoor Visibility Range 50m
- Power Source 2 x 1.5v dc LR03 (AAA-size) batteries
- Weight Including Battery 150grm

Price Each

Order Code	Product Code	1+	6+
WX64999	DW03050	£113.00	£107.35

DW03101 Laser Distance Measure 100m



DEWALT

NEW

- Laser distance measurer (LDM) manufactured to withstand the inevitable job site drops and falls on the Job site
- It has a range of up to 100m and an accuracy of +/- 1mm
- Common end-user functions : linear meter readings, surface and volume calculations. It will add or subtract readings and calculate distance in Metric and Imperial.
- The user can select the unit to continually measure which allows layout applications.
- Pythagoras indirect height function will allow to measure distances even when point A and/or point B isn't accessible for linear measurement
- Triangular area calculation to provide angle measurement

- Laser class 2
- Levelling Accuracy +/- 1mm/m
- Number of beams -1
- Indoor Visibility Range 100m
- Power Source 2 x 1.5v dc LR03 (AAA-size) batteries
- Can be fitted to a tripod

Price Each

Order Code	Product Code	1+	6+
WX65000	DW03101	£207.00	£196.65

Levels

Laser Levels

Cross Line Laser



DEWALT

- 2 beam Self-levelling cross line laser is accurate to ± 0.3 mm/m in levelling applications
- Self-Levelling up to +/-4° surface angle with automatic out of level indication, marks a levelled line in seconds
- Indoor visibility range 15 m, Laser class 2, <1mW
- 2-button operation and low battery indication for ease of use
- Built-in magnetic pivot bracket mounts easily on metal surfaces
- Tripod connection 1/4"
- Overmolded housing helps maintain calibration under jobsite conditions
- Weight 0.46 kg, 113x61x112mm (HxWxL)
- Includes 3 x (AA) batteries for 20+ hours runtime, Wall mount bracket, Heavy duty carrying case which protects unit and helps maintain calibration when stored in gang box

Price Each

Order Code	Product Code	1+	3+
WX63751	DW087K-XJ	£262.00	£243.66

SP-2 Laser Level



STANLEY

- Rotary base for rapid & accurate set up of level and right angles
- Fixing pins for secure fixing to walls
- Base levelling screw and swing out levelling feet for precision levelling
- Plumb vial for accurate vertical levelling
- Precision vial
- Magnetic base for secure clamping to metal stud and pipe work
- Beam spreader generates laser chalk line
- Battery case
- 5/8" x 11 thread mount - fits to camera tripod
- Dimensions: 80mm x 240mm x 32mm

Price Each

Order Code	Product Code	Description	1+	3+
WX39946	0-77-152	Laser Line	£55.58	£52.25

DW088K 2 Way Self-Levelling Line Laser (Horizontal and Vertical)



DEWALT

NEW

- Self-levelling cross line laser is accurate to ± 0.3 mm/m in levelling applications
- Self-Levelling up to 4 degrees surface angle with automatic out of level indication, marks a levelled line in seconds
- 2 button operation and low battery indication for ease of use
- Built in magnetic pivot bracket mounts easily on metal surfaces
- Focused laser beam keeps dot small, even over long distances for improved accuracy and visibility
- Over moulded housing and thick glass protects the tool and helps maintain calibration under jobsite conditions
- Includes 3 x AA batteries for 40 plus hours runtime
- Level includes Wall mount bracket, Heavy duty carrying case

- Laser class 2, <1mW
- Levelling Accuracy ± 0.3 mm/m
- Self-levelling range $\pm 4^\circ$
- Number of beams 2
- Direction of beams Vertical/level
- Indoor Visibility Range 10M
- Power Source 4.5V - 3 x AA Alkaline batteries
- Tripod connection 1/4" (6.35mm)

Price Each

Order Code	Product Code	1+	3+
WX63751	DW088K	£262.00	£243.66

DW083K 3 Point Self Levelling Laser



DEWALT

NEW

- Self levelling 3 beam laser, accurate to ± 0.2 mm/m
- Self levelling up to 4 degrees surface angle
- One button operation - fast and easy operation of laser
- Pendulum locks when in 'off' position
- Focused laser beam keeps dot small, even over long distances for improved accuracy and visibility
- Location magnets allow pointer to be used on metal track or with wall bracket
- Laser class 2, <1mW
- Levelling Accuracy ± 0.2 mm/m
- Self-levelling range $\pm 4^\circ$
- Number of beams 3
- Direction of beams up/down/level
- Indoor Visibility Range 30M
- Power Source 6V - 4 x AA Alkaline batteries
- Tripod connection 1/4" (6.35mm)

Price Each

Order Code	Product Code	1+	3+
WX63752	DW083K	£132.00	£122.76

DW085K 5 Point Self Levelling Laser



DEWALT

NEW

- Self levelling 5 beam laser, accurate to ± 0.2 mm/m
- Self levelling up to 4 degrees surface angle
- One button operation - fast and easy operation of laser
- Pendulum locks when in 'off' position
- Focused laser beam keeps dot small, even over long distances for improved accuracy and visibility
- Location magnets allow pointer to be used on metal track or with wall bracket
- Laser class 2, <1mW
- Levelling Accuracy ± 0.2 mm/m
- Self-levelling range $\pm 4^\circ$
- Number of beams 5
- Direction of beams up/down/level/square
- Indoor Visibility Range 30M
- Power Source 6V - 4 x AAA Alkaline batteries
- Tripod connection 1/4" (6.35mm)

Price Each

Order Code	Product Code	1+	3+
WX63753	DW085K	£200.00	£186.00

CL-2 Self Levelling Laser Cross Line



STANLEY

- One button mode selector
- Pendulum type self levelling
- 4 different operating modes
- Tough rubber housing
- Dimensions: 177mm x 163mm x 90mm

Price Each

Order Code	Product Code	Description	1+	3+
WX39947	1-77-153	Cross Laser Line	£164.75	£154.87

Cross check level



Roebuck

- A cross check spirit level, which levels any surface in 2 directions, the accuracy is 3mm per metre
- Dimensions are 44mm x 60mm x 13
- 5mm and the level has two screw holes for mounting 4mm dia x 25mm centres

Price Each

Order Code	Product Code	1+	6+
WX61052	2017426	£2.49	£2.37

Spirit Levels

FatMax - Non-Magnetic



STANLEY FatMax

- Machine milled on both sides - 0.5mm/m accuracy on top face & 0.7mm/m accuracy on bottom face
- Large vials for visibility
- Shock absorbing end caps protect the accuracy of the level if accidentally dropped
- Bi-material rubber hand grips for comfort & grip
- Lifetime guarantee for accuracy
- Available in magnetic versions for steel work

Price Each

Order Code	Product Code	Description	1+	6+
WX42027	5-43-524	600mm (24")	£22.83	£21.46
WX42029	5-43-536	900mm (36")	£27.38	£25.74
WX42031	5-43-548	1200mm (48")	£31.95	£30.03
WX42033	5-43-572	1800mm (72")	£53.75	£50.53

FatMax - Magnetic



- Machine milled on both sides - 0.5mm/m accuracy on top face & 0.7mm/m accuracy on bottom face
- Large vials for visibility
- Shock absorbing end caps protect the accuracy of the level if accidentally dropped
- Bi-material rubber hand grips for comfort & grip
- Lifetime guarantee for accuracy
- Magnetic versions for steel work (Rare earth magnets)

Price Each

Order Code	Product Code	Description	1+	6+
WX42028	5-43-525	600mm (24")	£25.64	£24.10
WX42030	5-43-537	900mm (36")	£30.14	£28.33
WX42032	5-43-549	1200mm (48")	£35.16	£33.05

FatMax XL™ Box/Beam Level



- Rock solid box beam construction - up to 5 times stronger than other Stanley levels
- Solid block vials - magnified by 20% for improved all round visibility
- Dual machined faces for best in class accuracy in 8 orientations of +/- 0.5mm/m
- Bi-material hand grips are screwed into the frame for comfort & grip
- Lifetime guarantee for accuracy
- Also available in magnetic versions for steel work (Rare earth magnets)

Price Each

Order Code	Product Code	Description	1+	6+
WX42035	5-43-624	600mm (24")	£31.66	POA
WX42037	5-43-648	1200mm (48")	£42.01	POA
WX42039	5-43-672	1800mm (72")	£72.11	POA

FatMax XL™ Box/Beam Level - Magnetic



- Rock solid box beam construction - up to 5 times stronger than other Stanley levels
- Solid block vials - magnified by 20% for improved all round visibility
- Dual machined faces for best in class accuracy in 8 orientations of +/- 0.5mm/m
- Bi-material hand grips are screwed into the frame for comfort & grip
- Lifetime guarantee for accuracy
- Rare earth magnets, which are twice as strong as basic strip magnets, are built into the level for stability

Price Each

Order Code	Product Code	Description	1+	6+
WX42036	5-43-625	600mm (24")	£36.65	£34.45
WX42038	5-43-649	1200mm (48")	£46.21	£43.44

Torpedo Levels

250mm Contractors Levels



- Expert Quality, with unique front viewing 'PLUMBSITE'® vial
- Cast aluminium with one horizontal, one 45° and a 'PLUMBSITE'® vial
- Special milled base with two ceramic magnets
- Accuracy: 0.5mm per 1M = 0.029° in standard position
- Manufactured for Draper Tools by Kapro

Price Each

Order Code	Product Code	Description	1+	6+
WX38621	69550	250mm	£28.86	£27.13

Aluminium Torpedo Level



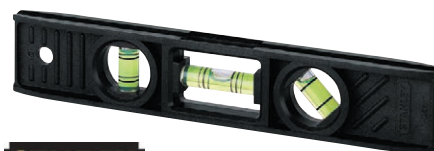
- Combines accuracy and lightweight, ideal for all small installations
- 3 vials: horizontal, plumb and 45°

Price Each

Order Code	Product Code	Description	1+	6+
WX21082	0-42-465	230mm	£13.42	£12.61

Number of Vials: 3

Plastic Torpedo Level



- Handy and economical plastic level
- 3 vials: horizontal, plumb and 45°

Price Each

Order Code	Product Code	Description	1+	6+
WX21078	0-42-294	200mm	£4.90	£4.61

Number of Vials: 3

Shockproof Magnetic Torpedo Level



- High visibility vials, Horizontal, vertical and 45degree
- Rubber end caps to provide protection
- 3 Vials

Price Each

Order Code	Product Code	Description	1+	6+
WX61053	0-43-511	230mm	£11.78	£11.07

FatMax XL™ Torpedo Level



- Rock solid box beam construction - up to 5 times stronger than other Stanley levels
- Solid block vials - magnified by 20% for improved all round visibility
- Machined faces for best in class accuracy in 8 orientations of +/- 0.5mm/m
- Bi-material hand grips are screwed into the frame for comfort & grip
- Lifetime guarantee for accuracy

Price Each

Order Code	Product Code	Description	1+	6+
WX42034	5-43-609	297x62x25mm	£18.26	£17.16

Engineers' Levels

Engineers' Levels



- Main vial sensitivity of 1 minute
- Each level is fitted with a main, cross and plumb vial
- Main vial protected by rotating shroud
- Vial solution maintains colour and fluidity under all workshop conditions
- Precision ground cast base with vee groove for location on cylindrical work
- Resolution: 0.3mm per mtr / 0.0035" per ft

Price Each

Order Code	Product Code	Description	1+	3+
WX45630	ELM	310mmx36x58mm	£169.19	£159.04
WX35175	ELS	165x34x46 mm	£115.34	£108.42

Scales

5kg Weighing Scale



- A low cost general purpose weighing scale ideal for a wide range of weighing applications
- It has a high grade plastic body and weighing pan with 3 function buttons
- It also has a Count-Down timer with a Hi-Frequency sonic alarm sounded on expiry
- Weighs in Kg/g or lbs/oz
- 150mmØ weighing pan
- Positive Click function buttons
- Non-slip rubber feet
- 18mm LCD display with large digits and function indicators
- Tare function can be actioned several times through a weighing cycle
- Plus/Minus weighing
- Overload indication "EEEE"
- Count-Down Timer from 99min 99sec with hi-frequency alarm at expiry
- Auto Power Off after 1 minute of no activity
- Supplied with Battery

- Calibration Certificate
Issued at 5 points:
500g, 1000g, 2000g, 3000g & 4000g
Additional points at:
per point
- Capacity 5Kg
- Resolution 1g
- Accuracy $\pm 1g$
- Power 1 x 3V Lithium Button Cell Battery (CR-2032)
- Dimensions 210 x 150 x 33mm (150mm $\varnothing$ Pan)
- Weight 333g

Price Each

Order Code	Product Code	Description	1+	3+
WX61054 ‡	KS-22	5Kg Scale	£19.75	£18.96

Multi-function Platform Scales



These multi-function platform scales can be either battery powered or mains powered by an AC/DC power adaptor. The housing incorporates a splash-proof membrane covered display with 4 function keys. They are very simple to use and designed to suit portable type applications.

- 4 models available with capacities of 35Kg, 60Kg or 150Kg
- Display can be switched from kgs to lbs
- Stainless steel 310 x 300mm platform
- Larger platform size on MEOB-150XL of 945x505x65mm
- Extremely flat construction of only 55 mm high
- Fast stabilisation time of only 2 seconds (approx.)
- 25mm LCD display with large digits and function indicators
- Dust-protected & splash-proof to IP-54 classification (IEC standard 60529)
- Detachable display head with 1.8m coiled cable
- Tare facility can be activated during a weighing cycle
- Auto power off after 2 minutes when used with 6 1.5V AA batteries
- Supplied with AC/DC power adaptor

Technical Specifications:

	MEOB-35	MEOB-60	MEOB-150	MEOB-150XL
Range:	35Kg	60Kg	150Kg	150Kg
Resolution:	20g	50g	100g	100g
Accuracy:	$\pm 40g$	$\pm 100g$	$\pm 200g$	$\pm 200g$
Power	AC/DC power adaptor (supplied) or 6 x 1.5V AA batteries			
Dimensions	310 x 300 x 55mm.			

Price Each

Order Code	Product Code	Description	1+	2+
WX41980 ‡	MEOB-35	35Kg Platform Scale	£140.80	£135.17
WX41981 ‡	MEOB-60	60Kg Platform Scale	£140.80	£135.17
WX41979 ‡	MEOB-150	150kg platform Scale	£140.80	£135.17
WX43993 ‡	MEOB-150XL	150kg platform Scale	£377.60	£362.50

Platform Scales with case



- Portable Parts Counting Platform Scales
- These robust, portable bench scales have a Stainless Steel pan, remote display head and battery or AC/DC operation
- They are ideal for general commercial and industrial weighing applications, stores, offices, mail rooms, shipping and receiving
- Weighs in kg or lbs
- Fast stabilisation time of only 2 seconds (approx.)
- Overload protection to 50% of capacity
- Silicon rubber non-slip feet
- Stainless Steel pan
- Impact-resistant ABS plastic display head with 1.5m coiled cable
- 35mm LCD display with function indicators
- Tare facility can be actioned several times through a weighing cycle
- Plus/Minus weighing function for QA sample cross checks
- Parts Counting from 25, 50, 75 or 100 sample pieces
- Auto Power Off after 2 minutes of no activity (battery powered only)
- Supplied with aluminium carry case, battery and AC/DC mains power adaptor
- Calibration Certificate
Issued at 5 points:
MHCG-5 5Kg, 10Kg, 20Kg, 30Kg & 40Kg
MHCG-1 20Kg, 50Kg, 80Kg, 120Kg & 140Kg

	MHCG-5	MHCG-1
Capacity	50Kg	150Kg
Resolution	20g	50g
Accuracy	$\pm 40g$	$\pm 100g$
Power	1 x 9V PP3 Alkaline Battery (LR-61) or AC/DC Mains Power Adaptor	
Dimensions	275 x 275 x 45mm (Platform), 180 x 95 x 40mm (Head)	
Weight	2.6Kg	

Price Each

Order Code	Product Code	Description	1+	3+
WX61055 ‡	HCG-1	150Kg Scale	£80.00	£76.80
WX61056 ‡	HCG-5	50Kg Scale	£80.00	£76.80

Multi-function Platform Scales - Parts Counting Function



This popular range of function-rich scales. The display head allows flexible positioning for different locations and can be used free-standing, front mounted, wall mounted or mounted on a 450mm elevation stand (ordered separately). These multi-function platform scales can be either battery or mains powered.

- Suitable for a wide range of weighing applications including parcels, parts counting and mixing
- Impact-resistant ABS display head
- 25mm back-lit LCD display with large digits and function indicators
- Backlight mode can be set on, off or auto off
- Tare function can be repeated continuously e.g. when mixing several components
- Percentage determination displays deviation from the reference weight in % instead of grams
- Parts counting from samples of 5, 10, 25 or 50 parts
- Memory accumulation of gross total weighing is ideal for batch counting or the individual and total weights of different components of a mixture
- Plus or minus weighing from user set value, ideal for quality control
- Auto zero can be user activated
- RS-232 interface for data transfer to printer or PC
- User calibration checks with certified calibration weights (required separately)
- Auto power off after 5 minutes when used with a battery
- Supplied with a front-of-platform display kit, wall mounting display kit, 1.5 metre display head to platform connection cable, display head dust cover & AC/DC power supply
- Power AC/DC power supply (supplied) or a standard 9V PP3 battery

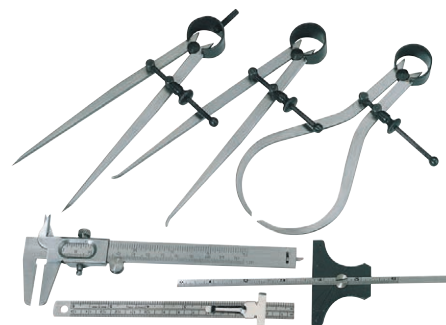
Technical Specs:	DED-15K2	DED-35K5L	DED-60K10	DED-150K20	DED-300K50L
Range	15Kg	36Kg	60Kg	150Kg	300Kg
Resolution	5g	10g	20g	50g	100g
Accuracy	$\pm 5g$	$\pm 10g$	$\pm 20g$	$\pm 50g$	$\pm 100g$

Price Each

Order Code	Product Code	Description	1+	2+
WX41973	DED-15K2	6/15kg x 2/5g RS-232 Platform Scale	£186.88	£179.40
WX41975	DED-35K5L	36Kg Platform Scale	£288.00	£276.48
WX41976	DED-60K10	60Kg Platform Scale	£186.88	£179.40
WX41972	DED-150K20	150Kg Platform Scale	£186.88	£179.40
WX41974	DED-300K50L	300Kg Platform Scale	£396.80	£380.93
WX41978	DE-A10	450mm Rear Display Elevation Kit	£80.98	£79.36

Measuring Sets

6 Piece Measuring Set



DRAPER

- Useful set of precision measuring instruments.
- Contents include:
- Spring Divider
- Outside Caliper
- Inside Spring Caliper
- Depth Gauge
- Slide Rule
- Sliding Caliper

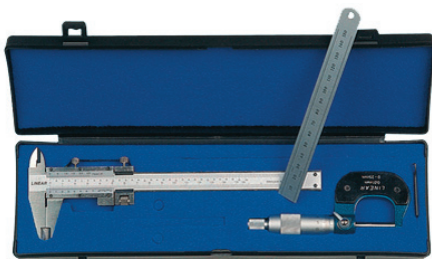
Price Each

Order Code	Product Code	Description	1+	6+
WX20768	59110	6 Pc Set	£25.63	£24.09

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Test & Measurement

Vernier caliper set



Roebuck

- Set contains :-
Vernier Caliper 150mm/6in,
External Micrometer 0-25mm,
Satin Chrome Steel Rule 150mm/6in

Price Each

Order Code	Product Code	1+	6+
WX61062	030555	£64.86	£61.62

Digital Caliper/Mechanical Micrometer Set



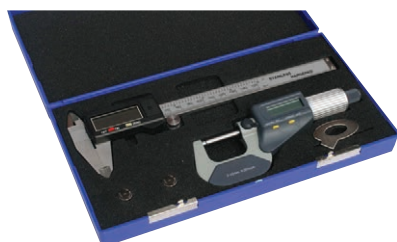
Roebuck

- Two of the most popular Roebuck measuring tools housed in a fitted plastic case
- Roebuck Electronic Caliper 150mm/6"
- Roebuck Mechanical Micrometer 0-25mm

Price Each

Order Code	Product Code	1+	6+
WX61063	9848380	£52.34	£49.72

Electronic Caliper Set



Roebuck

- Set contains:-
Electronic digital caliper 150mm/6in,
splash proof electronic micrometer

Price Each

Order Code	Product Code	1+	6+
WX61064	030557	£158.85	£150.91

Electronic Measuring Set



Roebuck

- 3 of the most popular measuring and setting tools, electronic dial gauge, digital caliper and magnetic base, conveniently housed in a fitted storage case
- Set contains:
1 x Large Face Digital Caliper
1 x Electronic Digital Indicator
1 x Magnetic Base with fine adjustment

Price Each

Order Code	Product Code	1+	6+
WX61065	1248906	£139.90	£132.91

Calipers

Spring Calipers

Outside Calipers



Roebuck

- Conventional European design with tapered flat section arms
- Bright finish all over including alloy steel spring
- Solid nut adjustment
- Dividers have hardened points

Price Each

Order Code	Product Code	Size	1+	6+
WX61066	030718	100mm / 4"	£9.86	£9.37
WX61067	030719	150mm / 6"	£11.18	£10.62
WX61068	030720	200mm / 8"	£14.59	£13.86

External Spring Calipers



- Manufactured from polished tool steel
- Bow spring ensures uniform tension over working range
- Centrally mounted adjustment screw offers finer setting, than firm joint type
- Range 150mm (6")

Price Each

Order Code	Product Code	Description	1+	6+
WX38676	52/6	150mm/6"	£16.99	£15.97

Inside Calipers



Roebuck

- Conventional European design with tapered flat section arms
- Bright finish all over including alloy steel spring
- Solid nut adjustment
- Dividers have hardened points

Price Each

Order Code	Product Code	Size	1+	6+
WX61069	030721	100mm / 4"	£9.86	£9.37
WX61070	030722	150mm / 6"	£11.18	£10.62
WX61071	030723	200mm / 8"	£14.59	£13.86

Internal Spring Calipers



- Manufactured from polished tool steel
- Bow spring ensures uniform tension over working range
- Centrally mounted adjustment screw offers finer setting, than firm joint type
- Range 150mm (6")

Price Each

Order Code	Product Code	Description	1+	6+
WX38675	51/6	150mm (6")	£16.99	£15.97

Dividers



Roebuck

- Manufactured to BS3123
- Conventional UK design with tapered flat section arms
- Bright finish all over including alloy steel spring
- Solid nut adjustment
- Dividers have hardened points

Price Each

Order Code	Product Code	Size	1+	6+
WX61072	030715	100mm / 4"	£9.67	£9.19
WX61073	030716	150mm / 6"	£11.67	£11.09
WX61074	030717	200mm 8"	£14.31	£13.59

Spring Dividers



- Manufactured from polished tool steel
- Points are hardened to over 550Hv
- Bow spring ensures uniform tension over working range
- Centrally mounted adjustment screw for finer adjustment
- Range 150mm (6")

		Price Each	
Order Code	Product Code	1+	6+
WX38674	50/6	£16.84	£15.83

Digital Calipers

Full Screen Digital Caliper



Roebuck

- Range 150mm/6"
- Resolution 0.01mm/0.0005"
- Accuracy 0.1mm/0.005"
- Extra large, full screen 10mm digits
- Lightweight plastic construction
- Metric/Inch conversion
- Zero set button
- Auto power off
- Auto power on when jaw is moved

		Price Each	
Order Code	Product Code	1+	6+
WX61075	1371697	£17.18	£16.32

Large Face Electronic Calipers



Roebuck

- Clear and large 16mm LCD display
- Hardened stainless steel frame and measuring jaws
- Thumb-roll adjustment, knurled locking screw and depth rod
- Inch/Metric Conversion
- 0.01mm/0.0005" resolution
- 0.01mm repeatability
- ± 0.02mm accuracy
- 40mm external and 18mm internal jaws

		Price Each	
Order Code	Product Code	1+	6+
WX61076	1370723	£47.40	£45.03
WX61077	1370724	£74.07	£70.37
WX61078	1370725	£126.64	£120.31
WX61079	1370726	£47.91	£45.51

Large digital calipers



Roebuck

- Calipers have hardened stainless steel frame and measuring jaws, fine adjustment and knurled locking screws
- Electronic features: on/off switch, inch/metric conversion, absolute/relative measuring modes and pre-set function
- Accuracy: ±0.02mm + (0.00005 x L)

		Price Each	
Product Code	Range measuring	Internal Jaw	External Jaw
030066	600mm / 24"	18 mm	100 mm
030548	1000mm / 40"	24 mm	125 mm

		Price Each	
Order Code	Product Code	1+	6+
WX61080	030066	£295.64	£280.85
WX61081	030548	£717.06	£681.20

Fractional Caliper

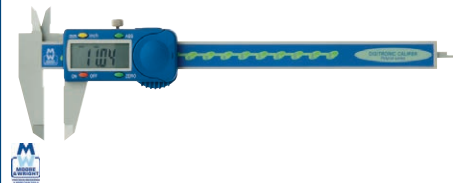


Roebuck

- A Digital Caliper which can display metric or imperial (fractional or decimal inch if not a proper fraction)
- Range: 0-150mm/0-6"
- Resolution: Metric: 1.01mm, Inch: 0.0005", Inch Fraction: 1/64"
- Clear LCD display with 10mm digits
- External and internal measurement accuracy +/-0.2mm

		Price Each	
Order Code	Product Code	1+	6+
WX61082	1331035	£34.41	£32.69

Polycarbonate Digital Caliper



- Polycarbonate frame
- 4 way measurement
- Accuracy +/- 0.2mm/0.008"
- Functions: mm/inch, zero setting
- Absolute/Incremental measurement
- Supplied retail packed with vinyl pouch

		Price Each	
Order Code	Product Code	1+	3+
WX43994	MW110-15DPC	£19.80	£18.61

Resolution: 0.01mm/0.0005"

Digital Calipers



- ABS/INC measurement
- Large LCD display
- On/off switch
- Zero point at any position
- Displays values in mm and inch
- All metal parts made of hardened stainless steel
- CR2032 battery

		Price Each	
Order Code	Product Code	1+	3+
WX43995	MW110-15DBL	£38.50	£36.19

Resolution: 0.01mm / 0.0005"

WX43996	MW110-20DBL	£66.50	£62.51
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Resolution: 0.01mm / 0.0005"

WX43997	MW110-30DBL	£108.50	£101.99
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Resolution: 0.01mm / 0.0005"

Digimatic ABSolute Caliper Series 500



- Easy to read LCD display for quick easy to read accurate 4 way measurement
- Imperial metric conversion
- Zero setting/ABSolute feature
- Patented worldwide; the ABSolute Precision Function from Mitutoyo is easily explained
- Calipers equipped with this system may operate and measure without having to start all over again at the zero point each time
- You yourself establish the zero reference thus being able to display the absolute value of the measured length at each point. Which means in other words; you start at the zero point just once - this point will automatically be 'kept in mind' by the measuring instrument all the time even if its been switched off in between

		Price Each	
Order Code	Product Code	1+	3+
WX63754	500-196-30	£95.24	£90.48

Resolution: 0.01 mm/0.0005"

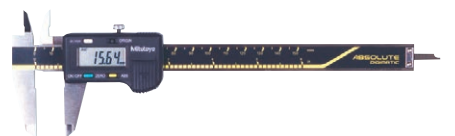
WX38671	500-172-21	£172.00	£163.40
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Resolution: 0.01 mm/0.0005"

WX32076	500-173	£324.45	£308.23
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Resolution: 0.01 mm/0.0005"

UKAS Calibrated Digimatic ABSolute Caliper Series 500



- Easy to read LCD display for quick easy to read accurate 4 way measurement
- Imperial metric conversion
- Zero setting/ABSolute feature
- Error free with no overspeed error

		Price Each	
Order Code	Product Code	1+	3+
WX63755	500-196-30-UKAS	£125.82	£123.30

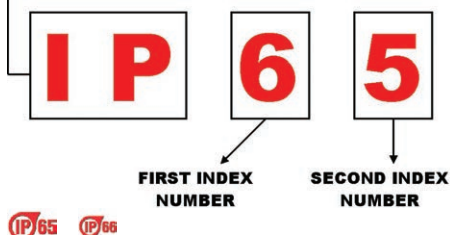
Resolution: 0.01 mm/0.0005" - 150mm (6")

Waterproof Digital Calipers

IP Protection Ratings Explained



INTERNATIONAL PROTECTION



- The term "protection class" generally denotes the protection of an instrument or its interior against direct contact as well as against the ingress of solid foreign bodies like objects, dust or water.
- In this connection, the resistance against strains and loads through the given operating and working conditions are defined by international protection classes (International Protection = IP). The protection classes are indicated in IP standards (DIN EN 60529) where a two-digit numerical code concretely defines the protection degree.
- The first number refers to the resistance against solid foreign bodies and dust, the second number refers to the resistance against the ingress of water. The higher the numerical value of one digit (first number 0-6, second number 0-8), the higher the protection degree.
- In this section you will find both IP66 and IP65 rated calipers

First index	Protection against Human Contact	Protection against foreign bodies
0	No special protection.	
1	With back of hand.	Large foreign bodies diam. >50mm.
2	With a finger.	Medium-sized foreign bodies diam. >12.5
3	With tools and wires etc with a thickness >2.5mm.	Small foreign bodies diam. >2.5mm.
4	With tools and wires etc with a thickness >1mm.	Granular foreign bodies diam. >1mm.
5	Complete protection.	Dust protected; dust deposits permitted
6	Complete protection.	Dust-proof
Second Index	Water protection against:	
0	No special protection	
1	Water dripping vertically	
2	Water dripping at an angle (up to 15° from vertical)	
3	Water dripping at an angle (up to 60° from vertical)	
4	Spray water from all directions	
5	Water jets from a nozzle in all directions	
6	High pressure jets	
7	Temporary immersion	
8	Permanent Immersion	

Water Resistant Digital Caliper



- Water and dust resistant to IP54 specification
- Large LCD display
- Patented ceramic capacitive sensor
- CR2032 battery
- Functions: mm/inch conversion on/off zero setting ABS/INC measurement

		Price Each	
Order Code	Product Code	Description	1+ 3+
WX45631	MW110-15WR	150mm (6")	£54.00 £50.76
Resolution: 0.01mm / 0.0005"			
WX45632	MW110-20WR	200mm (8")	£83.50 £78.49
Resolution: 0.01mm / 0.0005"			
WX45633	MW110-30WR	300mm (12")	£123.00 £115.62
Resolution: 0.01mm / 0.0005"			

ABSolute Coolant Proof Caliper Series 500



- Patented worldwide; the ABSolute Precision Function from Mitutoyo is easily explained:
- Calipers equipped with this system may operate and measure without having to start all over again at the zero point each time
- You yourself establish the zero reference thus being able to display the absolute value of the measured length at each point. Which means in other words; you start at the zero point just once - this point will automatically be 'kept in mind' by the measuring instrument all the time even if its been switched off in between
- Superb resistance to water, oil, dust and coolant, ideal for use in tough workshop conditions
- Imperial metric conversion
- Large easy to read LCD display

		Price Each	
Order Code	Product Code	Description	1+ 3+
WX38673	500-672	150mm (6")	£130.00 £123.50
Resolution: 0.01 mm			

Waterproof Digital Calipers



- Waterproof construction to IP-65 standard
- Large clear digital display with 10mm high characters
- Functions: On / Zero switch, Metric / Inch conversion
- Accuracy: +/- 0.02mm (below 100mm), +/- 0.03mm (100 - 150mm)
- Repeatability: 0.01mm
- 4 way measurement: External, Internal, Step and Depth
- Depth rod and thumbroll adjustment

		Price Each	
Order Code	Product Code	Description	1+ 3+
WX31745	49-165-150	150mm (6")	£136.23 £129.42
Resolution: 0.01mm			

Depth Gauges

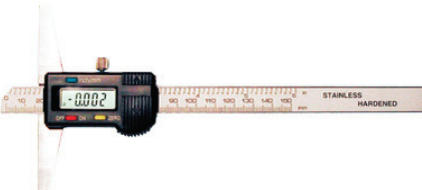
Series 571 Digital Depth Gauge



- Large LCD display for quick error free depth measurements
- Imperial/Metric conversion
- Repeatability: 0.01mm/0.0005"
- Accuracy: +/- 0.02mm (below 200mm)
- Zero setting/ABSolute feature
- Error free with no overspeed error
- Data output
- ABSolute feature allows depth gauge to retain origin setting even when switched off

		Price Each	
Order Code	Product Code	Description	1+ 3+
WX32077	571-211-20	150mm (6")	£307.65 £292.27
Resolution: 0.01mm/0.0005"			

Electronic depth gauge



Roebuck

- Hardened stainless steel frame and depth base, depth base measures 100mm long x 6.65mm wide
- Resolution 0.01mm/0.0005in

		Price Each	
Order Code	Product Code	1+ 6+	
WX61107	030618	£67.14	£63.78

Can't see it here,
just call
0870 240 2100

Tyre tread depth gauge



Roebuck

- A lightweight robust construction gauge probe & base manufactured from carbon fibre composite, with 3 Button operation: On/Off, Inch/Metric and Zero set, it is also suitable for brake shoe and pad wear and comes complete with a full set of operating instructions

Specifications:- Total Range 25mm / 1" Resolution: 0.01mm / 0.0005" Accuracy: +/- 0.2mm

Price Each

Order Code	Product Code	1+	6+
WX61108	2017373	£10.97	£10.42

Vernier Calipers

Vernier calipers



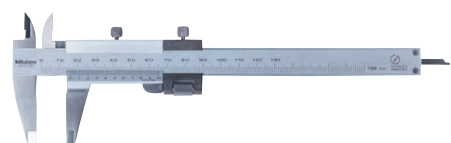
Roebuck

- Made from stainless steel with metric and imperial graduations available with either thumbblock facility or fine adjustment model which has locking screw
- Resolution 0.02mm/0.001in

Price Each

Order Code	Product Code	Adjustment	Accuracy	Range, measuring max	1+	6+
WX61083	1248905	Thumblock	±0.02mm	100mm / 4"	£27.44	£26.07
WX61084	231725	Thumblock	±0.02mm	150mm / 6"	£23.43	£22.26
WX61085	231726	Fine	±0.02mm	150mm / 6"	£26.79	£25.45
WX61086	030480	Fine	±0.02mm	200mm / 8"	£42.38	£40.26
WX61087	231727	Fine	±0.02mm	300mm 12"	£64.06	£60.86

Vernier Caliper with Fine Adjustment Series 532



Available ✓ Mitutoyo

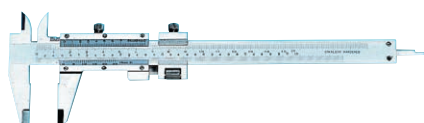
- Fine adjustment allows sensitive slider movement
- Clear graduations on satin chrome finish
- 14° measuring face angle for easy reading

Price Each

Order Code	Product Code	Description	1+	3+
WX20364	532-119	130mm (5")	£60.00	£57.00

Graduation: 0.02mm

Vernier Calipers with Fine Adjustment



- Hardened stainless steel frame and measuring jaws
- 4 way measurement: External, Internal, Step and Depth
- Depth rod and fine adjustment mechanism
- Dual reading: Metric 0.02mm, Inch 0.001"

Price Each

Order Code	Product Code	Description	1+	6+
WX31787	51-100-006	145mm (5-1/2")	£24.89	£23.65
Graduation: 0.01mm				
WX31788	51-100-008	200mm (8")	£41.40	£39.33
Graduation: 0.01mm				
WX31789	51-100-012	300mm (12")	£68.31	£64.89
Graduation: 0.01mm				

Dial Calipers

Precision dial caliper



Roebuck

- These calipers have hardened stainless steel bodies, with satin chrome finish
- Four way measurement for outside, inside, depth and step
- The calipers incorporate a thumb roll for easy adjustment plus knurled locking screw

Price Each

Order Code	Product Code	Capacity	Graduation	1+	6+
WX61088	030125	6"	0.001 "1.6"	£34.02	£32.32
WX61089	030126	150mm	0.02mm/40 mm	£37.42	£35.55
WX61090	030494	8"	0.001 "1.9"	£56.94	£54.09
WX61091	030495	12"	0.001 "2.5"	£76.27	£72.46
WX61092	030496	200mm	0.02mm/48mm	£56.50	£53.68
WX61093	030497	300mm	0.02mm/63mm	£76.27	£72.46

Micrometers

External Micrometers

External Micrometer



Roebuck

- Non-glare hard satin chrome spindle and sleeve with microfine graduations for accurate reading
- Positive spindle locking lever and ratchet thimble
- Tungsten carbide measuring faces
- Supplied in a plastic case complete with adjustment tool

Price Each

Order Code	Product Code	Range	Scale Divisions	1+	6+
WX61094	032101	0 - 25 mm	0.01 mm	£22.91	£21.76
WX61095	032102	0-1"	0.001"	£23.71	£22.52

Roebuck Mechanical Micrometers



Roebuck

- Accuracy conforms to BS 870 & DIN 863
- Tungsten carbide measuring faces
- Non glare hard satin chrome barrel & sleeve
- Micro fine graduations for accurate reading
- Micrometers above 25mm & 1" supplied with setting rod
- Spindle locking lever
- Spindle diameter 6.5mm
- Standard models have ratchet thimble
- Supplied in fitted case with adjustment tools
- Accuracy 0-25mm:0.001mm
- Flatness of measuring faces: 0.00076mm
- Parallelism of measuring faces: 0.000125mm

Price Each

Order Code	Product Code	Range	1+	6+
WX61096	9847731	25-50mm	£26.09	£24.79
WX61097	9847740	50-75mm	£33.27	£31.61
WX61098	9847758	75-100mm	£35.36	£33.59
WX61099	9847782	1-2"	£27.02	£25.67
WX61100	9847790	2-3"	£37.50	£35.62
WX61101	9847804	3-4"	£36.69	£34.86

External Micrometer - Tungsten Carbide



- Mechanical external micrometer
- Tungsten carbide anvils
- Accuracy to BS870
- Series 961:
- Pearl chrome plated with insulation pads
- Series 966:
- Blue textured frame finish
- Ribbed bow frame

Price Each

Order Code	Product Code	Description	1+	6+
WX32079	1961M	Series 961	£53.00	£51.41
Range Minimum: 0 mm, Range Maximum: 25 mm, Graduation: 0.01mm				
WX32084	1966M50	Series 966	£53.00	£51.41
Range Minimum: 25 mm, Range Maximum: 50 mm, Graduation: 0.01mm				
WX32085	1966M75	Series 966	£69.00	£66.93
Range Minimum: 50 mm, Range Maximum: 75 mm, Graduation: 0.01mm				
WX32083	1966M100	Series 966	£78.50	£76.15
Range Minimum: 75 mm, Range Maximum: 100 mm, Graduation: 0.01mm				
WX32078	1961	Series 961	£53.00	£51.41
Range Minimum: 0", Range Maximum: 1", Graduation: 0.001", Range: Series 961				
WX32080	1966-2	Series 966	£51.50	£49.96
Range Minimum: 1", Range Maximum: 2", Graduation: 0.001"				
WX32081	1966-3	Series 966	£69.00	£66.93
Range Minimum: 2", Range Maximum: 3", Graduation: 0.001"				
WX32082	1966-4	Series 966	£76.50	£74.21
Range Minimum: 3", Range Maximum: 4", Graduation: 0.001"				

External Micrometer - Steel



- Mechanical external micrometer
- Steel anvils
- Blue textured frame finish
- Accuracy to BS870
- Series 965:
- Tapered bow frame
- Series 966:
- Ribbed bow frame

Price Each

Order Code	Product Code	Description	1+	6+
WX32094	965M	Series 965	£43.00	£40.42
Range Minimum: 0mm, Range Maximum: 25mm, Graduation: 0.01mm				
WX32099	966M50	Series 966	£61.00	£57.34
Range Minimum: 25mm, Range Maximum: 50mm, Graduation: 0.01mm				
WX32100	966M75	Series 966	£82.50	£77.55
Range Minimum: 50mm, Range Maximum: 75mm, Graduation: 0.01mm				
WX32098	966M100	Series 966	£91.00	£85.54
Range Minimum: 75mm, Range Maximum: 100mm, Graduation: 0.01mm				
WX32093	965	Series 965	£43.00	£40.42
Range Minimum: 0", Range Maximum: 1", Graduation: 0.001"				
WX32095	966-2	Series 966	£61.00	£57.34
Range Minimum: 1", Range Maximum: 2", Graduation: 0.001"				
WX32096	966-3	Series 966	£82.50	£77.55
Range Minimum: 2", Range Maximum: 3", Graduation: 0.001"				
WX32097	966-4	Series 966	£91.00	£85.54
Range Minimum: 3", Range Maximum: 4", Graduation: 0.001"				

Metric Micrometer Series 103



- Enamelled frame economy metric micrometers
- Tungsten tipped measuring faces
- Clear graduations on satin chrome finish
- Suitable for all external measurements in either workshop or inspection departments

Price Each

Order Code	Product Code	Description	1+	3+
WX20325	103-137	0 - 25mm	£40.85	£38.81
Graduation: 0.01mm				
WX20326	103-138H	25 - 50mm	£51.14	£48.58
Graduation: 0.01mm				
WX20327	103-139-10H	50 - 75mm	£71.40	£67.83
Graduation: 0.01mm				
WX20328	103-140-10H	75 - 100mm	£80.10	£76.10
Graduation: 0.01mm				

Imperial Micrometer Series 103



- Enamelled frame economy imperial micrometers
- Tungsten tipped measuring faces
- Clear graduations on satin chrome finish
- Suitable for all external measurements in either workshop or inspection departments

Price Each

Order Code	Product Code	Description	1+	3+
WX20329	103-177	0 - 1"	£40.85	£38.81
Graduation: 0.001 in				
WX20330	103-178H	1 - 2"	£51.14	£48.58
Graduation: 0.001 in				
WX20331	103-179H	2 - 3"	£67.52	£64.14
Graduation: 0.001 in				
WX20332	103-180H	3 - 4"	£75.71	£71.92
Graduation: 0.001 in				

LTL Micrometers Sets



- Sets supplied in fitted wooden boxes
- Complete with all setting rods and adjusting tools
- Tungsten carbide measuring faces
- Enamelled frame with heat plates
- Accuracy conforms to BS 870 & DIN 863

Price Each

Order Code	Product Code	Description	1+	3+
WX31770	50-200-075	0-75 mm Set	£93.00	£88.35
Range: 0-75 mm Set, Graduation: 0.01 mm				
WX31771	50-200-100	0-100 mm Set	£128.44	£122.02
Range: 0-100 mm Set, Graduation: 0.01 mm				
WX31772	50-200-150	0-150 mm Set	£230.40	£218.88
Range: 0-150 mm Set, Graduation: 0.01 mm				
WX31767	50-200-003	0-3" Set	£93.00	£88.35
Range: 0-3" Set, Graduation: 0.001"				
WX31768	50-200-004	0-4" Set	£135.20	£128.44
Range: 0-4" Set, Graduation: 0.001"				
WX31769	50-200-006	0-6" Set	£218.88	£207.94
Range: 0-6" Set, Graduation: 0.001"				

Mechanical digital micrometer



Roebuck

- Mechanical Digital Micrometers offer easy to read measurements from the digital display
- Measurements can also be read from the thimble as conventional micrometers

Price Each

Order Code	Product Code	Accuracy	Range	1+	6+
WX61102	9847936	0.001"	0 - 1"	£46.87	£44.53
WX61103	9847944	0.01mm	0 - 25mm	£44.92	£42.68

Digital Micrometers

Electronic Digital Micrometer



Roebuck

- This Micrometer features a clear LCD Display with 8mm digit sizes
- It has metric/inch conversion, a zero reset at any position, tungsten carbide anvils, spindle lock, plastic heat guard and a painted frame
- It is supplied in a fitted case as standard
- Specifications:-
- Range: 0 - 25 / 0 - 1"
- Resolution: Digital Display: 0.001mm/0.00005"
- Resolution: Mechanical Thimble: 0.01mm Accuracy: 0.004mm

Price Each

Order Code	Product Code	Accuracy	Range	1+	6+
WX61104	2017364	0.004mm	0 - 25 / 0 - 1 in	£68.16	£64.75

Splash Proof Electronic Micrometer



Roebuck

- This micrometer provides protection against ingress of dust and splashed liquid
- Complete with friction thimble and spindle lock
- Large LCD display, automatic switch-off and tungsten carbide anvil faces

Price Each

Order Code	Product Code	Range	1+	6+
WX61105	030122	0-25 mm / 0 - 1 in	£102.47	£97.34

Digitronic Outside Micrometer IP54



- 201 Series from Moore & Wright protected to IP54 specifications
- Rugged steel design
- Large LCD display
- Absolute and Incremental modes
- Carbide measuring faces
- Ball attachment included

Price Each

Order Code	Product Code	Description	1+	6+
WX44000	MW201-01DAB	Series 201	£80.50	£75.67
Range: 0 - 25mm / 0 - 1", Resolution 0.001mm / 0.00005"				
WX44001	MW201-02DAB	Series 201	£99.50	£93.53
Range: 25 - 50mm / 1 - 2", Resolution 0.001mm / 0.00005"				
WX44002	MW201-03DAB	Series 201	£108.50	£101.99
Range: 50 - 75mm / 2 - 3", Resolution 0.001mm / 0.00005"				
WX44003	MW201-04DAB	Series 201	£134.00	£125.96
Range: 75-100mm / 3 - 4", Resolution 0.001mm / 0.00005"				

Digimatic Micrometer Series 293



Calibration Available ✓ **Mitutoyo**

- Easy to use digital micrometers
- Large LCD display for error free external measurements
- Imperial/metric conversion at the touch of a button
- Origin setting
- Auto power off
- Tungsten carbide tipped measuring faces

Price Each

Order Code	Product Code	Description	1+	3+
WX20355	293-344	0-25 mm / 0-1"	£140.70	£133.67

Graduation: 0.001mm

Digital Micrometer



Mitutoyo

- Simple to use digital micrometer
- Large LCD display
- Imperial/metric conversion
- 215g lightweight construction
- Easy one handed operation

Price Each

Order Code	Product Code	Description	1+	3+
WX20356	293-832	0-25 mm / 0-1"	£90.62	£86.09

Graduation: 0.001 mm

Electronic digital micrometer



Roebuck

- This micrometer features a clear LCD display, with easy metric/ inch conversion
 - It has relative & absolute modes, tungsten carbide anvils an auto power off after 5 minutes, friction thimble, spindle lock lever, plastic heat guard painted frame
 - It is supplied with ball anvil attachment and a fitted case
- Specifications :-
Range: 0-25mm / 0-1"
Resolution 0.001mm/0.00005"
accuracy 0.002mm

Price Each

Order Code	Product Code	1+	6+
WX61106	2017365	£74.77	£71.03

Internal Micrometers

Series 900 Internal Micrometers

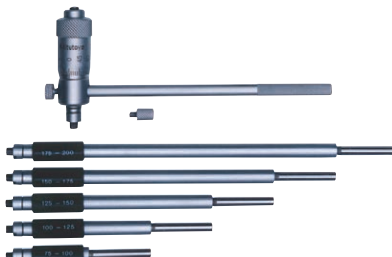


- Each model comprises of:
- Measuring head
- Set of extension rods
- Spacing collar (to facilitate alternative measuring range)
- Complete with detachable extension handles
- Fitted case

Price Each

Order Code	Product Code	Description	1+	6+
WX32090	903M	50 - 310mm	£147.50	£138.65
WX32089	903	2 - 12"	£147.50	£138.65

Interchangeable Rod Series 141



Mitutoyo

- Interchangeable rods allow a large range of bores to be measured
- Clear graduations on satin chrome finish
- Includes handle for deep hole measurement
- Metric / imperial measurement options

Price Each

Order Code	Product Code	Description	1+	3+
WX20336	141-206	50 - 300mm	£183.75	£174.56

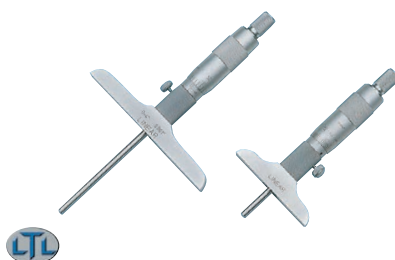
Range Minimum: 50mm, Range Maximum: 300 mm,
Graduation: 0.01mm, Range: 50 - 300mm

WX20337	141-233	2 - 12"	£183.75	£174.56
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Range Minimum: 2 in, Range Maximum: 12 in, Graduation: 0.001 in,
Range: 2 - 12"

Depth Micrometers

LTL Depth Micrometers



- Satin chrome micrometer head
- Hardened and ground base
- Flat ended anvils 4.5mm dia.
- Metric reading: 0.01mm, Inch reading 0.001"

Price Each

Order Code	Product Code	Description	1+	3+
WX31764	50-170-025	0 - 25mm	£50.05	£47.55

Graduation: 0.01mm

WX35113	50-175-100	0 - 100mm	£98.33	£93.41
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Graduation: 0.01mm

WX31763	50-170-001	0 - 1"	£65.36	£62.09
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Graduation: 0.001"

WX31765	50-175-006	0 - 6"	£129.39	£122.92
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Graduation: 0.001"

Depth Gauge Micrometers



- Interchangeable depth rods, 4mm diameter
- 63.5mm / 2.5in base length
- Accuracy to BS6468

Price Each

Order Code	Product Code	Description	1+	3+
WX32088	891M150	0 - 150mm	£166.00	£156.04

Graduation: 0.01mm

WX32087	891-6	0 - 6"	£158.00	£148.52
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Graduation: 0.001 in

Digimatic Rod Type Depth Micrometer Series 329



Mitutoyo

- Digital display allows quick and easy measurement
- Large LCD display is easy to read
- 4mm diameter measuring rods
- Imperial/metric conversion
- Zero setting and data hold

Price Each

Order Code	Product Code	Description	1+	3+
WX20357	329-711-30	0 - 150mm	£490.00	£465.50

Graduation: 0.001 mm

Digital Depth Micrometers



- Friction thimble for easy one handed use
- Range: 0-150mm / 0-6"
- Base size: 100mm wide
- Complete with 6 flat end depth rods
- Dia of rods 4.5mm
- Tolerance, relative and absolute modes
- True inch/metric conversion at the touch of a button
- Resolution: 0.001mm & 0.0005"
- Satin chrome frame and thimble

Price Each

Order Code	Product Code	Description	1+	3+
WX35114	50-890-006	0-150mm (0-6")	£203.00	£192.85

Micrometer Accessories

Ball Attachment



Mitutoyo

- Attachment for conventional micrometers to enable the measurement of concave surfaces
- Suitable for models up to 150mm / 6"
- Metric version has 5mm ball
- Imperial version has 0.2" ball

Price Each

Order Code	Product Code	Description	1+	3+
WX20323	101468E	Imperial	£7.90	£7.51
WX20324	101468M	Metric	£5.15	£4.89

Gauges

Bore Gauges

Bowers 3 Point Metric Bore Gauges



- XT Analogue Bowers XT Analogue Bore Gauges are an economical solution to accurate shop-floor bore measurement
- The extended mechanical travel of these advanced two or three point gauges ensures that exchanging measuring anvils is now unnecessary
- Range 2 – 300mm (0.080" – 12")
- 2 – 6mm 2 point/ 6 – 300mm 3 point measurement
- Graduation 2-6mm: 0.001mm, 6-300mm: 0.005mm
- Tungsten carbide measuring faces on all 3-point heads from 12.5mm
- Blind bore measurement from 2mm – 6mm and above 12.5mm (0.500")
- Extensions available above 6mm for deep hole measurement
- Ratchet stop to ensure consistent measurement
- Setting rings included with individual instruments and sets
- UKAS certificates supplied as standard with all setting rings
- UKAS Certificate supplied as standard with all XT mechanical micrometers
- Heads with special anvils available to suit specific customer requirements (e.g. groove measurement)
- Bore gauges manufactured according to DIN 863, part 4

			Price Each	
Order Code	Product Code	Type	1+	3+
WX38610 ‡	XTA6M	6 - 8mm	£214.00	POA
Accuracy: 0.004 mm, Setting Ring: 8mm				
WX38614 ‡	XTA8M	8 - 10mm	£222.50	POA
Accuracy: 0.004mm, Setting Ring: 8mm				
WX38594 ‡	XTA10M	10 - 12.5mm	£222.50	POA
Accuracy: 0.004mm, Setting Ring: 12.5mm				
WX38596 ‡	XTA12M	12.5 - 16mm	£222.50	POA
Accuracy: 0.004mm, Setting Ring: 12.5mm				
WX38598 ‡	XTA16M	16 - 20mm	£226.50	POA
Accuracy: 0.004mm, Setting Ring: 20mm				
WX38600 ‡	XTA20M	20 - 25mm	£247.00	POA
Accuracy: 0.004mm, Setting Ring: 20mm				
WX38602 ‡	XTA25M	25 - 35mm	£355.50	POA
Accuracy: 0.004mm, Setting Ring: 35mm				
WX38604 ‡	XTA35M	35 - 50mm	£362.50	POA
Accuracy: 0.004mm, Setting Ring: 35mm				
WX38606 ‡	XTA50M	50 - 65mm	£431.50	POA
Accuracy: 0.005mm, Setting Ring: 65mm				
WX38608 ‡	XTA65M	65 - 80mm	£431.50	POA
Accuracy: 0.005mm, Setting Ring: 65mm				
WX38612 ‡	XTA80M	80 - 100mm	£547.00	POA
Accuracy: 0.005mm, Setting Ring: 80mm				
WX38592 ‡	XTA100M	100 - 125mm	£550.00	POA
Accuracy: 0.005mm, Setting Ring: 12mm				

Bowers 3 Point Imperial Bore Gauges



- XT Analogue Bowers XT Analogue Bore Gauges are an economical solution to accurate shop-floor bore measurement
- The extended mechanical travel of these advanced two or three point gauges ensures that exchanging measuring anvils is now unnecessary
- Range 2 – 300mm (0.080" – 12")
- 2 – 6mm 2 point/ 6 – 300mm 3 point measurement
- Graduation 2-6mm: 0.001mm, 6-300mm: 0.005mm
- Tungsten carbide measuring faces on all 3-point heads from 12.5mm
- Blind bore measurement from 2mm – 6mm and above 12.5mm (0.500")
- Extensions available above 6mm for deep hole measurement
- Ratchet stop to ensure consistent measurement
- Setting rings included with individual instruments and sets
- UKAS certificates supplied as standard with all setting rings
- UKAS Certificate supplied as standard with all XT mechanical micrometers
- Heads with special anvils available to suit specific customer requirements (e.g. groove measurement)
- Bore gauges manufactured according to DIN 863, part 4

Price Each

Order Code	Product Code	Type	1+	3+
WX38609 ‡	XTA6I	1/4 - 5/16"	£214.00	POA
Accuracy: 0.00015", Setting Ring: .312"				
WX38613	XTA8I	5/16 - 3/8"	£222.50	POA
Accuracy: 0.00015", Setting Ring: .312"				
WX38593	XTA10I	3/8 - 1/2"	£222.50	POA
Accuracy: 0.00015", Setting Ring: .500"				
WX38595	XTA12I	1/2 - 5/8"	£222.50	POA

Order Code	Product Code	Type	1+	3+
Accuracy: 0.00015", Setting Ring: .750"				
WX38597	XTA16I	5/8 - 3/4"	£226.50	POA
Accuracy: 0.00015", Setting Ring: .750"				
WX38599	XTA20I	3/4 - 1"	£247.00	POA
Accuracy: 0.00015", Setting Ring: 1.375"				
WX38601	XTA25I	1 - 1.3/8"	£355.50	POA
Accuracy: 0.00015", Setting Ring: 1.375"				
WX38603	XTA35I	1.3/8 - 2"	£362.50	POA
Accuracy: 0.00015", Setting Ring: 1.375"				
WX38605	XTA50I	2 - 2.5/8"	£431.50	POA
Accuracy: 0.00020", Setting Ring: 2.625"				
WX38607	XTA65I	2.5/8 - 3.1/4"	£431.50	POA
Accuracy: 0.00020", Setting Ring: 2.625"				
WX38611	XTA80I	3.1/4 - 4"	£547.00	POA
Accuracy: 0.00020", Setting Ring: 3.250"				
WX38591	XTA100I	4 - 5"	£550.00	POA
Accuracy: 0.00020", Setting Ring: 5.000"				

Telescopic Gauges 315 Series



- For quick inside measurement and determination of inside diameters
- Spring loaded plunger that expands in the bore or groove
- Satin chromed body
- With auto extension and direct locking
- Measuring faces are hardened and micro-lapped
- Range:-
- 8-12.7mm
- 12.7-19.0mm
- 19.0-32.0mm
- 32.0-54.0mm
- 54.0-90.0mm
- 90.0-150.0mm

Price Each

Order Code	Product Code	Description	1+	3+
WX44007	MW315.01	Metric	£77.50	£72.85

Telescopic hole gauge set



Roebuck

- Provide easy and accurate measurement of holes and slots
- Two plungers under equal and constant spring pressure can be locked between the walls of a slot or across the diameter of a hole and measured by caliper or micrometer
- Hardened and ground tips

Price Each

Order Code	Product Code	Capacity	Range	1+	6+
WX61109	031070	8-150 mm	5/16 - 6	£103.28	£98.12

Hole / Depth Gauges

Thickness Gauges

Snapcal Digital Caliper



- Spring-loaded travel
- Inch/mm conversion
- Wide faced flat jaw for easy positioning
- Hardened stainless steel construction
- Supplied in rugged holster
- Accuracy: $\pm 0.02\text{mm}/0.001''$

Price Each

Order Code	Product Code	Description	1+	3+
WX44008	MW461-01D	0-30mm/ 0-1.25"	£68.50	£64.39

Resolution: 0.01mm / 0.0005"

Mini Thickness Gauge Series 7



Mitutoyo

- Compact pocket size Digimatic Thickness Gauge
- Ideal for measuring paper, plastic, sheet, metal and film
- Metric / Imperial conversion
- Measuring faces are hardened ground and lapped

Price Each

Order Code	Product Code	Description	1+	3+
WX20369	700-118-20	0 - 12mm	£60.50	£57.48

Resolution: 0.01 mm, Accuracy: $\pm 0.02\text{mm}/\pm 0.001''$

Electronic Thickness Gauges

USB Datalogging Coating Thickness Meter



- The DT-156 is a compact coating thickness meter and measures the thickness of coatings on ferrous and non-ferrous metallic substrates. Example coatings include paint, lacquer, plastic, rubber and epoxy. The sensor is integral to the instrument. A USB interface facilitates the download of measurements for comparison tests and record keeping.
- Measure microns 0 to 1250µm
- Automatic recognition of Ferrous or Non-Ferrous substrate
- Continuous or single measurements.
- Statistic display of Average, Maximum and Minimum
- Memory for 400 readings as single or group
- Hi and Lo alarm
- Compact and robust integral sensor built in

- Auto Power Off
- Low Battery Indicator
- USB interface for data output to PC or Laptop
- User calibration using supplied calibration foils and base plates
- Will measure on substrate curvatures of:
 - 1.5mm Ferrous, 3mm Non-Ferrous
- Supplied with 1 ferrous & 1 non-ferrous base plate, calibration foils, software, USB connection cable, carry case and batteries
- 2 year warranty
- CALIBRATION
 - Calibration Certificates are available for both the instrument and the calibration foils
- Technical Specifications
 - Range Up to 1,250µm (micron)
 - Resolution 0.1 Low Range, 1µm High Range
 - Accuracy $\pm 3\% + 1$ of reading
 - Min Measuring Area 7mm Ferrous, 5mm Non-Ferrous
 - Min base thickness 0.5mm Ferrous, 0.3mm Non-Ferrous
 - Power 2 x AA 1.5V Alkaline Batteries (LR-6)
 - Dimensions 114 x 55 x 27mm
 - Weight 1101g

Price Each

Order Code	Product Code	1+	4+
WX61110 ‡	DT-156	£155.00	£148.80

‡ Special delivery applies. Please call for details

RS-232 Ultrasonic Material Thickness Gauge



- The TD-225 can accurately measure the thickness of steel (ferrous metals) using sophisticated non-invasive ultrasonic's. Using the RS-232C interface and software results can be logged on a computer
- Impact-resistant ABS case with integral calibration plate
- RS-232C data output for PC connection
- User selectable between mm and inches
- 30mm LCD display with function indicators
- Auto Power Off function
- 2 years warranty
- Supplied with 4 x 1.5v AA batteries, control plate, calibration foils, 10mm Ø sensor, range 1 to 225mm (max 50°C) & hard carry case
- Software and PC connection cable optional (TD-01)
- Optional Sensors Available:
 - TB-US01 6mm Ø probe for thin material, range 1 to 50mm (max 50°C)
 - TB-US02 12mm Ø probe for hot work up to 300°C, range 1 to 225mm
- Technical Specifications
 - Range 1.2 to 225mm (Steel)
 - Resolution 0.1mm
 - Accuracy $\pm 0.5\%$ of the measured value
 - Power 2 x 1.5V AA Alkaline Batteries (MLR-6)
 - Dimensions 120 x 62 x 30mm
 - Weight 164g

Price Each

Order Code	Product Code	1+	4+
WX53557 ‡	TD-225	£352.00	£337.92
WX53558 ‡	TB-US01	£160.00	£153.60
WX53559 ‡	TB-US02	£314.88	£302.28
WX53560 ‡	TD-01	£96.00	£92.16
WX53561 ‡	TG-GEL	£5.75	£5.52

‡ Special delivery applies. Please call for details

Cygnus 2- Hands Free Ultrasonic Thickness Gauge



- Hands free multiple echo ultrasonic digital thickness gauge
- Measures metal thickness to determine wastage or corrosion - accurately, quickly and without removing protective coatings
- Taking metal thickness checks in areas where hands free operation is necessary for instance:
 - Where either rope access Ladder or scaffold work is necessary
 - Cranes
 - Hoppers
 - Containers
 - Pylons
 - High Structures
 - Ships
- Measurement Range:
 - 3 - 250 mm with 2.25 MHz Probe
 - 2 - 150 mm with 3.5 MHz Probe
 - 1 - 50 mm with 5 MHz Probe
- Accuracy $\pm 0.05\text{mm}$
- Power 2 x AA alkaline batteries 20 hours continuous use
- Environmental Protection IP 65 and IP67
- Comes as a complete Kit with 1 probe 1 lead 2 sets of batteries carry case and protective case
- Call for more details

Price Each

Order Code	Product Code	1+
WX53577 ‡	002-7140/4 Cygnus 2	£1,545.00

‡ Special delivery applies. Please call for details

Feeler Gauges

Feeler Gauge Sets



Roebuck

- Precision gauges with taper steel blades, hardened and polished
- Each blade is marked with size and folds into the polished metal case

Price Each

Order Code	Product Code	Length of Blade	Size Range	1+	6+
WX61111	230623	100 mm/4 in	0.05 - 1.0mm	£10.01	£9.51
WX61112	230624	100 mm/4 in	0.002-0.035"	£10.01	£9.51

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Test & Measurement

Feeler Gauge Sets



- 10 Blades in each set
- Hardened, tempered and polished

Imperial Feeler Gauge

		Price Each	
Order Code	Product Code	Description	
WX32091	911	4" Length	£7.52
Width: 0.5 in, Range: 0.015 - 0.025 in			
WX35129	1106	6" Length	£24.90
Width: 0.5 in, Range: 0.015 - 0.025 in			
WX35130	1112	12" Length	£33.69
Width: 0.5 in, Range: 0.015 - 0.025 in			

Metric Feeler Gauge

		Price Each	
Order Code	Product Code	Description	
WX32092	911M	100mm Length	£7.52
Width: 12.7mm, Range: 0.50 - 0.80mm			
WX35131	1106M	150mm Length	£24.90
Width: 12.7mm, Range: 0.05 - 0.80mm			
WX35132	1112M	300mm Length	£33.69
Width: 12.7mm, Range: 0.05 - 0.80mm			

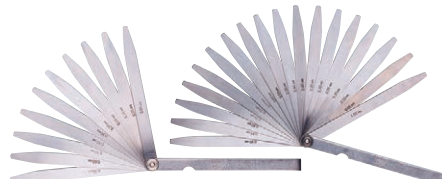
Feeler Strip Sets



- 20 Piece Feeler strips in wallet
- Hardened, tempered and polished

		Price Each	
Order Code	Product Code		
WX32108	FS20M	Metric	£35.13
Length: 150 mm, Range: Metric			
WX32107	FS20E	Imperial	£35.13
Length: 6 in, Range: Imperial			

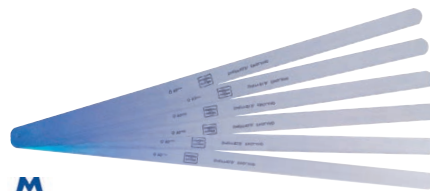
Feeler Gauge Sets Series 184



- Made from finest tempered steel
- Size clearly stamped on each leaf
- Leaves are easily removed
- All leaves can be individually locked open
- Metric set contains 22 sizes 0.05-1mm in 0.05mm steps

			Price Each	
Order Code	Product Code	Description	1+	3+
WX20351	184-304S	Metric	£23.73	£22.54

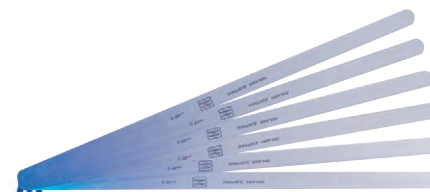
Metric Feeler Strip



- Complies with DIN2275
- Standard features include:
- Hardened, tempered and polished steel strip
- Nominal thickness is marked on each strip
- Length 300mm
- Width 12.7mm

			Price Each	
Order Code	Product Code	Thickness	1+	3+
WX35153	126M003	0.03mm	£3.00	£2.82
WX35154	126M004	0.04mm	£3.00	£2.82
WX35155	126M005	0.05mm	£3.00	£2.82
WX35156	126M006	0.06mm	£3.00	£2.82
WX35157	126M007	0.07mm	£3.00	£2.82
WX35158	126M008	0.08mm	£3.00	£2.82
WX35159	126M009	0.09mm	£3.96	£3.72
WX35160	126M010	0.10mm	£3.96	£3.72
WX35161	126M015	0.15mm	£3.95	£3.71
WX35162	126M020	0.20mm	£3.96	£3.72
WX35163	126M025	0.25mm	£4.00	£3.76
WX35164	126M030	0.30mm	£3.80	£3.57
WX35165	126M035	0.35mm	£3.80	£3.57
WX35166	126M040	0.40mm	£3.95	£3.71
WX35167	126M045	0.45mm	£3.80	£3.57
WX35168	126M050	0.50mm	£6.05	£5.69

Imperial Feeler Strip



- Complies with DIN2275
- Standard features include:
- Hardened, tempered and polished steel strip
- Nominal thickness is marked on each strip
- Length 12" (inch)
- Width 0.5" (inch)

			Price Each	
Order Code	Product Code	Thickness	1+	3+
WX35133	126/0001	0.001"	£2.99	£2.81
WX35134	126/00015	0.0015"	£2.95	£2.77
WX35135	126/0002	0.002"	£3.00	£2.82
WX35136	126/0003	0.003"	£2.95	£2.77
WX35137	126/0004	0.004"	£3.80	£3.57
WX35138	126/0005	0.005"	£3.96	£3.72
WX35139	126/0006	0.006"	£3.95	£3.71
WX35140	126/0007	0.007"	£3.95	£3.71
WX35141	126/0008	0.008"	£3.96	£3.72
WX35142	126/0009	0.009"	£3.96	£3.72
WX35143	126/0010	0.010"	£3.96	£3.72
WX35144	126/0012	0.012"	£3.95	£3.71
WX35145	126/0013	0.013"	£3.80	£3.57
WX35146	126/0014	0.014"	£3.80	£3.57

Order Code	Product Code	Thickness	1+	3+
WX35147	126/0015	0.015"	£3.96	£3.72
WX35148	126/0016	0.016"	£3.95	£3.71
WX35149	126/0017	0.017"	£3.95	£3.71
WX35150	126/0018	0.018"	£3.80	£3.57
WX35151	126-0019	0.019"	£5.70	£5.36
WX35152	126-0020	0.020"	£5.70	£5.36

5" Metric Steel Feeler Gauge Poc-Kit



- POC-KITS® contains twenty 1/2" wide blades
- Packaged in a sturdy, vinyl case
- Individual blade pockets
- Conveniently folds flat
- Each blade is clearly etched with inch and metric sizes
- Ends are rounded and edges are smooth for safety
- Vinyl case helps prevent rust and extends blade life
- Contents:

.001"/.025mm	.010"/.254mm
.0015"/.038mm	.012"/.305mm
.002"/.051mm	.014"/.356mm
.003"/.076mm	.015"/.381mm
.004"/.102mm	.016"/.406mm
.005"/.127mm	.018"/.457mm
.006"/.152mm	.020"/.508mm
.007"/.178mm	.022"/.559mm
.008"/.203mm	.024"/.610mm
.009"/.229mm	.025"/.635mm

		Price Each	
Order Code	Product Code	Description	
WX44009	77-119-740	5" Kit	£39.18
			£37.22

12" Metric Steel Feeler Gauge Poc-Kit



- POC-KITS® contains twenty 1/2" wide blades
- Packaged in a sturdy, vinyl case
- Individual blade pockets
- Conveniently folds flat
- Each blade is clearly etched with size in metric and inches
- Ends are rounded and edges are smooth for safety
- Vinyl case helps prevent rust and extends blade life
- Contents:

.001"/.025mm	.010"/.254mm
.0015"/.038mm	.012"/.305mm
.002"/.051mm	.014"/.356mm
.003"/.076mm	.015"/.381mm
.004"/.102mm	.016"/.406mm
.005"/.127mm	.018"/.457mm
.006"/.152mm	.020"/.508mm
.007"/.178mm	.022"/.559mm
.008"/.203mm	.025"/.635mm
.009"/.229mm	.030"/.762mm

		Price Each	
Order Code	Product Code	Description	
WX44010	77-119-990	12" Kit	£87.60
			£83.22

Stainless Steel POC-KIT® Assortment



- Contains twenty 5" long x 1/2" wide blades
- Contains sixteen different thicknesses; duplicate blades have been included on the four most commonly used thicknesses
- Packaged in a sturdy, vinyl case which extends blade life
- Individual blade pockets
- Conveniently folds flat
- Each blade is clearly etched with inch and metric sizes
- Ends are rounded and edges are smooth for safety
- Contents:

Qty	Sizes	Qty	Sizes
2	.001"/.025mm	1	.008"/.203mm
2	.0015"/.038mm	1	.009"/.229mm
2	.002"/.051mm	1	.010"/.254mm
2	.003"/.076mm	1	.012"/.305mm
1	.004"/.102mm	1	.015"/.381mm
1	.005"/.127mm	1	.020"/.508mm
1	.006"/.152mm	1	.025"/.635mm
1	.007"/.178mm	1	.031"/.787mm

Price Each

Order Code	Product Code	Description	1+	6+
WX44011	77-177-750	20 x 5" Kit	£127.30	£120.94

Plastic Thickness Gauge Assortments



- Contains thirteen blades riveted together for on-site convenience
- Made of the highest quality plastic material
- .001" to .005" - Polyester
- .0075" to .030" - Vinyl
- 1/2" wide blades are available in 5" & 12" lengths
- Color indicates thickness
- Packaged in a sturdy vinyl case
- Non-corrosive, non-conductive, non-sparking and non-marring
- Individual blades are also available on special order
- Both sets contain:

Thickness	Color	Thickness	Color
.001"/.025mm	Amber	.010"/.254mm	Brown
.0015"/.038mm	Purple	.0125"/.318mm	Black
.002"/.051mm	Red	.015"/.381mm	Pink
.003"/.076mm	Green	.020"/.508mm	Yellow
.004"/.102mm	Tan	.025"/.635mm	White
.005"/.127mm	Blue	.030"/.762mm	Coral
.0075"/.191mm	Matte		

Price Each

Order Code	Product Code	Description	1+	6+
WX44012	77-178-905	5" Plastic Assortment	£35.60	£33.82
WX44013	77-178-900	12" Plastic Assortment	£53.50	£50.83

Brass POC-KIT® Assortment



- Contains twenty 5" long x 1/2" wide blades
- Manufactured from 260 alloy
- Packed in a sturdy, vinyl case which extends blade life
- Individual blade pockets
- Conveniently folds flat
- Each blade is clearly etched with inch and metric sizes
- Ends are rounded and edges are smooth for safety
- Set contains:

.001"/.025mm	.010"/.254mm
.0015"/.038mm	.012"/.305mm
.002"/.051mm	.014"/.356mm
.003"/.076mm	.015"/.381mm
.004"/.102mm	.016"/.406mm
.005"/.127mm	.018"/.457mm
.006"/.152mm	.020"/.508mm
.007"/.178mm	.022"/.559mm
.008"/.203mm	.025"/.635mm
.009"/.229mm	.030"/.762mm

Price Each

Order Code	Product Code	Description	1+	6+
WX44014	77-176-740	Brass Assortment	£107.00	£101.65

Feeler Stock In Roll With Dispenser Case



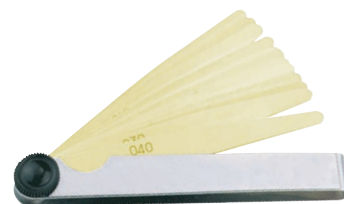
- Rewind feature permits retracting thinner feeler stock into the case, preventing damage
- Case provides the ability to snip off the desired length without any waste
- In a compact, sturdy plastic rewindable dispenser case handles stock up to 0.015"
- Imperial 25ft, Metric 7.5metres

Price Each

Order Code	Product Code		1+	3+
WX53637 ‡	666M-3	0.03mm	£61.79	£58.08
WX53638 ‡	666M-4	0.04mm	£45.77	£43.02
WX53639 ‡	666M-5	0.05mm	£45.77	£43.02
WX53640 ‡	666M-6	0.06mm	£45.77	£43.02
WX53641 ‡	666M-8	0.08mm	£45.77	£43.02
WX53642 ‡	666M-10	0.10mm	£41.61	£39.11
WX53643 ‡	666M-15	0.15mm	£41.61	£39.11
WX53644 ‡	666M-20	0.20mm	£35.58	£33.45
WX53645 ‡	666M-25	0.25mm	£35.58	£33.45
WX53646 ‡	666M-30	0.30mm	£35.58	£33.45
WX53647 ‡	666M-35	0.35mm	£35.58	£33.45
WX53648 ‡	666M-40	0.40mm	£36.36	£34.17
WX53649 ‡	666M-45	0.45mm	£46.88	£44.07
WX53650 ‡	666M-50	0.50mm	£43.89	£41.26
WX53651 ‡	666-1	0.001"	£57.66	£54.20
WX53652 ‡	666-1.1/2	0.0015"	£43.85	£41.22
WX53653 ‡	666-2	0.002"	£40.12	£37.71
WX53654 ‡	666-2.1/2	0.0025"	£46.35	£43.57
WX53655 ‡	666-3	0.003"	£46.35	£43.57
WX53656 ‡	666-4	0.004"	£40.12	£37.71

Order Code	Product Code		1+	3+
WX53657 ‡	666-5	0.005"	£37.87	£35.60
WX53658 ‡	666-6	0.006"	£37.87	£35.60
WX53659 ‡	666-7	0.007"	£46.26	£43.48
WX53660 ‡	666-8	0.008"	£41.39	£38.91
WX53661 ‡	666-9	0.009"	£31.31	£29.43
WX53662 ‡	666-10	0.010"	£31.31	£29.43
WX53663 ‡	666-11	0.011"	£31.31	£29.43
WX53664 ‡	666-12	0.012"	£31.31	£29.43
WX53665 ‡	666-13	0.013"	£31.31	£29.43
WX53666 ‡	666-14	0.014"	£31.31	£29.43
WX53667 ‡	666-15	0.015"	£31.31	£29.43
WX53668 ‡	666-16	0.016"	£30.65	£28.81
WX53669 ‡	666-17	0.017"	£30.65	£28.81
WX53670 ‡	666-18	0.018"	£30.65	£28.81
WX53671 ‡	666-19	0.019"	£30.65	£28.81
WX53672 ‡	666-20	0.020"	£32.82	£30.85
WX53673 ‡	666-21	0.021"	£32.82	£30.85
WX53674 ‡	666-22	0.022"	£32.82	£30.85
WX53675 ‡	666-23	0.023"	£39.80	£37.41
WX53676 ‡	666-24	0.024"	£39.80	£37.41
WX53677 ‡	666-25	0.025"	£39.28	£36.92

Brass Thickness/Feeler Gauge



- Anti-magnetic brass leaves
- Nominal size marked
- Conical leaf 13 x 100mm
- Frame with locking screw
- Delivered in individual packages
- Sizes:

5150-502: 0.05–0.50 0.05 / 0.10 / 0.15 / 0.20 / 0.25 / 0.30 / 0.40 / 0.50

5150-503: 0.05–1.00 0.05 / 0.10 / 0.15 / 0.20 / 0.25 / 0.30 / 0.40–1.00

5150-504: 0.05–1.00 0.05 / 0.10–1.00

Price Each

Order Code	Product Code	Description	1+	3+
WX53627	5150-502	8 Leaves, 0.05–0.50	£6.08	£5.78
WX53628	5150-503	13 Leaves, 0.05–1.00	£9.38	£8.91
WX53629	5150-504	20 Leaves, 0.05–1.00	£14.18	£13.47

**Easy ordering
by phone, fax,
email, web or
via your local
Brammer Sales
and Service
Centre**

Plastigauge



- Price Each

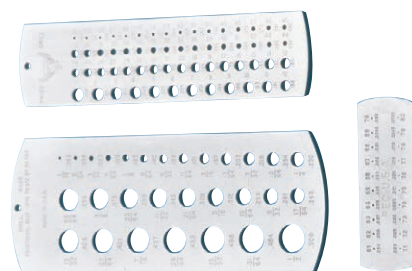
Order Code	Product Code	Description	1+	12+
WX38683	PL-A	0.001" - 0.007"	£33.59	£31.24
Range: 0.025 - 0.175mm				
WX38684	PL-B	0.004" - 0.010"	£52.49	£48.82
Range: 0.100 - 0.250mm				
WX38685	PL-C	0.007" - 0.020"	£52.49	£48.82
Range: 0.175 - 0.500mm				
WX38686	PL-D	0.020" - 0.040"	£52.49	£48.82
Range: 0.500 - 1.00mm				

Screwpitch Gauges



- | Order Code | Product Code | | Price Each | |
|----------------|--------------|-----------------------------|------------|--------|
| | | | 1+ | 6+ |
| WX53630 | 809 | ISO Metric 22 Blades | £20.02 | £18.82 |
| WX53631 | 799 | American National 30 Blades | £26.95 | £25.33 |
| WX53632 | 800 | Whitworth 28 Blades | £21.97 | £20.65 |
| WX53633 | 806 | Unified 30 Blades | £27.35 | £25.71 |

Drill Gauges



- Will determine thread pitch of workpiece by matching blade teeth with thread
- Narrow designed blades permit use for internal and external threads, each blade is clearly marked with thread pitch, chosen blade can be locked in position for easy use
- All sets contain 28 blades and are protected in a sturdy steel case



- Price Each

Order Code	Product Code	Description	1+	3+
WX31784	5075	57 Holes 1 - 5.9mm	£26.41	£25.09
WX31785	5076	30 Holes 1.5 - 12.5mm	£26.41	£25.09
WX31780	5052	29 Holes 1/16 - 1/2"	£26.50	£25.18

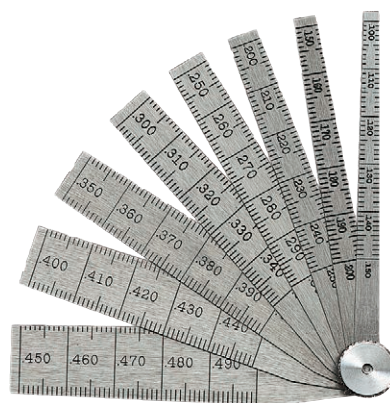
Thread Plug Gauges



- ### Thread Type

ISO metric threads DIN 13 < M 1.6	5H
ISO metric threads DIN 13 ≥ M 1.6	6H
Whitworth standard thread BS 84	medium class
Whitworth fine thread BS 84	medium class
Whitworth pipe thread DIN ISO 228	Mittel / Medium
Trapezoidal screw thread DIN 103	7H
Knuckle thread DIN 405	7H
UNC / UNF / UNEF thread ANSI (BS 919)	2B

Starrett Taper Gauges Sets



Starrett®

- These are named “taper” gages only because of their shape
- They do not measure taper, but they do measure hole and slot sizes
- They are quick to use, very accurate, and are a convenient size
- These gages are for determining hole sizes in dies and all kinds of other work
- They are read in 0.02mm
- Made of tempered steel, with a locking device for fixing any leaf in position for use
- 269MA: 2-12mm Range, 64mm Length, 10 Leaves, 0.02mm graduation
- 269MB: 12-25mm Range, 70mm Length, 13 Leaves, 0.02mm graduation

Order Code	Product Code	Description	Price Each	
			1+	4+
WX42042	269MA	2-12 mm	£85.49	£80.36
WX42043	269MB	12-25 mm	£107.13	£100.70

Starrett Taper Gauges



Starrett

- These are named "taper" gages only because of their shape
- They do not measure taper, but they do measure hole and slot sizes
- The Starrett No. 270 Taper Gage is a very useful tool, especially for bearing work and for gaging slots
- The gage is made of quality tool steel 7/16" (11mm) wide by 6 1/4" (160mm) long and is accurately tapered throughout its entire length for quick and convenient measuring of slot widths, etc
- Although a bit expensive, this tool can and has been used as a precision shim
- One side is graduated from .010" to .150" in thousandths of an inch and the reverse side from 0.3mm to 4mm in one-twentieth of a mm (0.05mm)
- 47 piece workshop grade

Order Code	Product Code	Description	Price Each	
			1+	4+
WX42044	270	Taper Gauge	£45.05	£42.34

Gauge Block Set



Roebuck

- These sets are manufactured from specially selected high quality, age hardened, alloy steel and housed in a fitted wooden case
- All sets are supplied with a 5 point UKAS (Namas) certificate
- Qty 1, Range 1005mm
- Qty 20, Range 1.01 - 1.20mm, Steps 0.01mm
- Qty 7, Range 1.30 - 1.90mm, Steps 0.10mm
- Qty 9, Range 1.00 - 9.00mm, Steps 100mm
- Qty 10, Range 10.00 - 100.00mm, Steps 10.00mm

Order Code	Product Code	Description	Price Each	
			1+	6+
WX61116	030137		£360.00	£342.00

Digital and Dial Indicators

Metric dial test indicator



Roebuck

- Dial diameter 32mm
- Satin chrome indicator body with dovetail on all three sides
- Automatic reverse mechanism
- Adjustable bezel for easy reading, 250° lever position
- Fully jewelled movements
- 2mm diameter ball anvil stylus 14
- 5mm long
- Accuracy to DIN 22

Order Code	Product Code	Graduation	Range	Price Each	
				1+	6+
WX61117	032115	0.01 mm	0 - 0.8mm	£57.92	£55.02

Digital Indicators

Digital Dial Indicators



Roebuck

- This electronic indicator combines the ease of digital reading with the applications of standard plunger dial indicators
- Dial diameter 60mm, with 8mm stem and lug back mounting, 3 button operation: on/off switch, imperial/metric conversion
- ± 0.03mm accuracy
- Resolution 0.01mm/0.0005in

Order Code	Product Code	Range	Price Each	
			1+	6+
WX61118	030578	10 mm / 0.4 in	£52.71	£50.07

Digital Indicators 405 Series



- Direct Inch / Metric conversion
- 58mm dial face
- Lugback and 8mm stem mountings
- Resolution 0.01mm/0.0005"
- Absolute / Incremental reading
- Floating Zero

Order Code	Product Code	Description	Price Each	
			1+	3+
WX44015	MW405-04DB	0 - 12.7mm / 0.5"	£53.00	£49.82
Accuracy: 0.02mm/0.0008"				
WX44016	MW405-06DB	0 - 25.0mm / 1.0"	£64.50	£60.63
Accuracy: 0.03mm/0.0012				

ABS Digimatic Indicator Series 543



ABSOLUTE
Absolute System Powered by MITUTOYO

CALIBRATION
Available ✓

Mitutoyo

- Patented worldwide; the ABSolute Precision Function from Mitutoyo explained:-
- Calipers equipped with this system may operate and measure without having to start all over again at the zero point each time. You yourself establish the zero reference thus being able to display the absolute value of the measured length at each point. Which means in other words; you start at the zero point just once - this point will automatically be 'kept in mind' by the measuring instrument all the time even if its been switched off in between
- Tolerance setting
- Data output
- Magnified judgement results
- Large LCB display is easy to read and rotates through 330°
- Metric / Imperial conversion
- Data output

Order Code	Product Code	Description	Price Each	
			1+	3+
WX63756	543-391B	12.7mm	£308.06	£292.65
Resolution: 0.001mm, Accuracy: 0.003mm				

IDU ABS Digimatic Indicator



ABSOLUTE
Absolute System Powered by MITUTOYO

CALIBRATION
Available ✓

Mitutoyo

- Patented worldwide; the ABSolute Precision Function from Mitutoyo explained:-
- Calipers equipped with this system may operate and measure without having to start all over again at the zero point each time
- You yourself establish the zero reference thus being able to display the absolute value of the measured length at each point. Which means in other words; you start at the zero point just once - this point will automatically be 'kept in mind' by the measuring instrument all the time even if its been switched off in between
- Slim compact low cost design
- Metric / Imperial conversion
- Zero setting anywhere
- Data output
- Battery life approximately 1 years continuous use

Order Code	Product Code	Description	Price Each	
			1+	3+
WX20368	575-123	25mm	£138.60	£131.67
Resolution: 0.01mm				

Standard Digimatic Indicator Series 543



CALIBRATION
Available ✓

Mitutoyo

- Compact economical Digital Indicator which can easily replace analog equivalents
- Large LCD display
- Metric / Imperial conversion
- Zero setting

Price Each

Order Code	Product Code	1+	3+
WX63757	543-782	£103.11	£97.95

Range: 12mm, Resolution: 0.01mm, Accuracy: 0.02mm

Dial Indicators

40mm Dial Indicators



Roebuck

- Dial size 40mm (1-9/16 in)
- Fitted with standard lug back and 8mm diameter stem, hardened and ground rack adjustable dial, bezel lock and tolerance pointers

Price Each

Order Code	Product Code	Graduation	Reading, Travel display	Travel per revolution	1+	6+
WX61119	030677	0-100	0.01mm	5 mm	1 mm	£27.11 £25.75
WX61120	030568	0-100	0.001in	0.25 in	0.1 "	£24.70 £23.47

60mm Dial Indicators



Roebuck

- Dial size 60mm/ 2-1/4 in diameter
- Fitted with standard lug back fitting, hardened and ground racks, adjustable dial, bezel lock and tolerance pointers

Order Code	Product Code	Scale Divisions	Record Length	Travel Per Revolution	Price Each	
					1+	6+
WX61121	032112	0.01	10.0 mm	1.0 mm	£22.76	£21.62
WX61122	032113	0.01	25.0 mm	1.0 mm	£35.31	£33.54

60mm Dial Indicators Imperial



Roebuck

- Dial size 2-1/4 in diameter
- Fitted with standard lug back fitting, hardened and ground racks, adjustable dial, bezel lock and tolerance pointers

Price Each

Order Code	Product Code	Graduation	Reading, Travel display	Travel per revolution	1+	6+
WX61123	032110	0 - 100	0.001 in	0.5 in	0.1	£22.75 £21.61
WX61124	032111	0 - 100	0.001 in	1.0 in	0.1	£24.75 £23.51

Dial indicators - long travel



Roebuck

- Dial size 75mm (3in)
- Fitted with standard lug back and 8mm diameter stem, hardened and ground rack adjustable dial, bezel lock and tolerance pointers

Price Each

Order Code	Product Code	Graduation	Reading, Travel display	Travel per revolution	1+	6+
WX61125	030569	0-100	0.01mm	50 mm	1 mm	£89.46 £84.99
WX61126	030570	0-100	0.001in	2 in	0.1 "	£80.85 £76.81

Shock proof dial indicator



Roebuck

- Shockproof mechanism disengages the gear assembly from the rack, when the gauge spindle is exposed to sudden impact
- Bezel diameter 60mm

- Measuring range 10mm
- Graduated 0.01mm
- Scale reading 0-100
- Adjustable dial & bezel lock
- Tolerance pointers
- Central lug back and 8mm stem

Price Each

Order Code	Product Code	1+	6+
WX61127	9848070	£27.77	£26.38

Dial Indicators

Dial Indicators



- Housings machined from solid brass
- 58mm face diameter
- Lapped stainless steel spindle and stem
- Robust design to suit workshop use
- Unbreakable Plexi-glass face

Price Each

Order Code	Product Code	Description	1+	3+
WX32104	DIP-222M	0 - 10mm	£35.50	£33.37
Graduation: 0.01 mm				
WX32105	DIP-232E	0 - 0.4"	£35.50	£33.37
Graduation: 0.001"				

Dial Indicator



- Standard: DIN 878
- Satin-chromed body
- With Tungsten carbide measuring tip
- Shockproof
- Tolerance indicators
- Supplied with lug back
- Packed in foam box

Price Each

Order Code	Product Code	Description	1+	3+
WX38682	M400-06	0 - 10mm	POA	POA
Graduation: 0.01mm				

Dial Indicators Series 1



Calibration Available ✓ Mitutoyo

- Constructed from aluminium channel sections and fitted with serrated non-slip treads
- Large non-slip platform
- Handrail not supplied as standard
- When handrails are supplied they are supplied separately for easy use

			Price Each	
Order Code	Product Code	Description	1+	3+
WX20333	1044F	Metric	£39.00	£37.05
Graduation: 0.01 mm, Range: 5mm				
WX20321	1411S	Imperial	£62.16	£59.05
Graduation: 0.001 in, Range: .25 in				

Dial Indicators Series 2



Calibration Available ✓ Mitutoyo

- Conventional size easy to read indicator for most general applications
- Metric/Imperial options available
- Mitutoyo's most popular size Dial Indicator

			Price Each	
Order Code	Product Code	Description	1+	3+
WX20353	2046S	Metric	£31.92	£30.32
Graduation: 0.01 mm, Range: 10mm				
WX20354	2414S	Imperial	£59.96	£56.96
Graduation: 0.001 in, Range: 0.5 in				

Dial Indicators Series 513



Calibration Available ✓ Mitutoyo

- Ideal for use where access is restricted, or for comparative measurements with stand
- 39mm face diameter, scratch resistant glare free crystal
- High sensitivity and quick response from jewelled bearings
- Non clutch type for automatic reversal of measuring direction
- Metric/Imperial option available

			Price Each	
Order Code	Product Code	Description	1+	3+
WX20362	513-402	Imperial	£72.87	£69.23
Graduation: 0.0005 in, Range: 0.03 in				
WX20363	513-404E	Metric	£73.08	£69.43
Graduation: 0.01mm, Range: 0.8mm				

Dial Indicator Kits

Magnetic base & dial indicator kit



Roebuck

- Magnetic base specifications: Magnetic base with solid cross arm
- Plunger indicators held by lug back or 8mm diameter stem
- Lever indicators held by spigot
- Overall height 230mm
- Switchable magnet has 40kg pull
- Dial indicator specifications: Adjustable dial
- Bezel diameter 60mm
- Hardened and ground racks
- Bezel lock
- Lug back fitted
- Tolerance pointers
- Travel 10mm
- Resolution 0.01mm

			Price Each	
Order Code	Product Code		1+	6+
WX61128	1370735		£59.57	£56.59

Magnetic Bases

Magnetic Base Dial Indicator Stand



Roebuck

- Overall height 230mm,
- Supplied with fine adjustment arm
- Main post 12mm diameter,
- Main post body clamp 12mm,
- Base size 45mm x 70mm x 50mm

			Price Each	
Order Code	Product Code		1+	6+
WX61129	030498		£35.25	£33.49

Magnetic base with snake arm



Roebuck

- Provides clamping for plunger and lever indicators with spigots and stems between 1/8" and 1/2" diameter
- Flexible arm can be locked in any position by means of one lever
- Flexible arm fitted to ON/OFF switching magnet with 80 kilo pull
- Indicator not inc

			Price Each	
Order Code	Product Code		1+	6+
WX61130	9848088		£45.31	£43.04

Fine Adjustment Magnetic Base



Roebuck

- Medium duty push button magnetic base,
- Three precision ground contact surfaces,
- Base dimensions: L:48, W:40, H:50mm,
- Clamping force: 290(N),
- Upright: ø12mm chrome plated steel,
- Cross arm: ø10mm chrome plated steel

			Price Each	
Order Code	Product Code		1+	6+
WX61131	1370740		£45.90	£43.61

Stands

Flexible Stands

Magnetic Stands

Mini Magnetic Stand



Mitutoyo

- Mini Magnetic Stand for applications with restricted access
- Permanent magnet with 15kgf magnetic pull
- Ideal for test indicators with 6mm or 8mm stems or dovetail fitting

Order Code	Product Code	Price Each	
		1+	3+
WX20322	7014	£54.08	£51.38

Standard Magnetic Stand Series 7



Mitutoyo

- Standard magnetic stand with cross arm
- On/off switch to release the magnet
- Suitable for stem diameters of 4.5mm, 8mm and 3/8 inch
- 60kgf magnetic pull

Order Code	Product Code	Price Each	
		1+	3+
WX20370	7010SN	£59.12	£56.16

Magnetic Base Stands



- Plunger indicators held by lug back or 8mm stem
- Lever indicators held by spigot
- Overall height 230mm
- Switchable magnetic base has 80 kilo pull
- Base size: 57 x 51 x 62mm

Order Code	Product Code	Description	Price Each	
			1+	3+
WX31813	MB-1	Solid Cross Arm	£30.74	£29.20
WX31814	MB-2	Fine Adjust	£32.96	£31.31

Mighty Magnetic Base



- Universal magnetic base
- Strong magnet with 45lbs of pulling power
- Zinc die cast housing
- 5 different locations for mounting accessories
- Clamps up to 8mm / 3/8" stems

Order Code	Product Code	Description	Price Each	
			1+	3+
WX35128	UMB-1	Mag Base	£7.89	£7.50

Height Gauges

Vernier Height Gauges

Vernier height gauges



Roebuck

- Beam and slide manufactured from hardened stainless steel
- The main and vernier scales are satin chrome with the sliding scale raised to prevent wear
- The gauge has a fine adjustment mechanism with a carbide tipped scriber
- Imperial and metric readings

Order Code	Product Code	Graduation	Range	Price Each	
				1+	6+
WX61132	033673	0.02mm/ 0.001in	300mm / 12"	£161.60	£153.52
WX61133	030127	0.02mm/ 0.001in	600mm / 24"	£237.60	£225.72

Electronic

Electronic Digital Height Gauge



Roebuck

- Robust single column construction
 - Clear LCD display with 14mm digits
 - Hand wheel allows easy movement of measuring head
 - Fine adjustment mechanism
 - Contoured base provides improved handhold
 - Tungsten carbide tipped scriber
- 5 Button operations:
 OFF: Power Off
 ON/ZERO: Power on/Zero Set
 MM/Inch: MM/Inch Conversion
 ADD+: Preset Plus
 SUB: Preset Minus
 Measuring Range: 300mm/12" & 600mm/24"
 Resolution: 0.01mm/0.0005"
 Repeatability: 0.01mm

Order Code	Product Code	Range, measuring max	Price Each	
			1+	6+
WX61134	1370727	300mm / 12"	£303.04	£287.89
WX61135	1370731	600mm / 24"	£461.13	£438.07

Digital Height Gauge

Digital Height Gauge



- Heavy duty beam
- Handwheel for ease of use
- ABS/INC measurement
- Large LCD display
- Inch/mm conversion
- Positive lock carbide scribe
- Supplied in moulded case

Price Each

Order Code	Product Code	Description	1+	3+
WX44017 ‡	M191-30DAB	300mm (12")	£291.00	£273.54
Resolution: 0.01mm/0.0005"				
WX44018 ‡	M191-60DAB	600mm (24")	£384.50	£361.43
Resolution: 0.01mm/0.0005"				

‡ Special delivery applies. Please ask for details

Digimatic Height Gauge Series 570



Mitutoyo

- Robust construction with thick column, provides highly repeatable measurements and stability
- Fine adjustment
- Clear LCD screen for error free reading
- Metric / Imperial conversion
- Zero setting anywhere
- Data output

Price Each

Order Code	Product Code	1+	3+
WX20367	570-312	£419.00	£398.05
Range: 300 mm, Resolution: 0.01 mm			

Surface Gauges

Surface Gauges



- Designed for precise marking out operations
- Hardened & tempered steel base, ground on one end and bottom face
- Vee groove for locating on cylindrical workpieces
- One handed fine adjustment
- Two retractable locating pin, supplied with 2 interchangeable pillars and one 4mm diameter scriber (code:10112)
- E101B : Base size: 80mm x 65mm, pillar height: 225mm & 300mm
- E102B : Base Size: 105mm x 85mm, pillar height: 300mm & 450mm

Price Each

Order Code	Product Code	Description	1+	3+
WX38678 ‡	E101B	Small	£92.63	£87.07
WX38679 ‡	E102B	Large	£143.45	£134.84

‡ Special delivery applies. Please ask for details

Timers and Counters

Stopwatch 7.2mm Digit



- 7.2mm Digit Stopwatch
- 1/100 sec. precision with lap counter (for first 30 minutes)
- Calendar & time (12/24-hour format)
- Daily alarm and hourly chime
- Big digit display (digit height 7.2mm)
- Impact-resistant ABS case size: 64 x 53 x 19mm
- Supplied with battery and neck cord

Price Each

Order Code	Product Code	Description	1+	7+
WX38587	TM-136	Stopwatch	£2.80	£2.69

Count-Up/Down Timer



NEW

- A simple to use count-up or count-down timer. It is ideal for the food trade, laboratories, education and industry
- It is easy to program and has a high-frequency alarm on expiry of count-down times
- 99min's 99sec's x 1 second
- Large 20mm LCD display
- Quick and easy operation with Start, Stop, Reset and numeral keys
- Count-down mode with Alarm on expiry
- Count-down can be stopped and restarted at any point
- Memory to store last count-down time setting
- Auto-Repeat function for count-down
- Count-up mode until stopped
- Cumulative count-up function – count-up can be paused and re-started without losing the cumulative time count
- Timer can be mounted on a magnetic surface or suspended using the strap and hook
- Impact-resistant ABS case with flip-out desk stand and rear magnet
- Supplied with battery
- Dimensions 68 x 68 x 15mm
- Weight 55g

Price Each

Order Code	Product Code	1+
WX63758 ‡	TM-38 Count Timer	£4.00

‡ Special delivery applies. Please ask for details

Tally Counters



NEW

- Housed in a chrome plated steel case. Ideal for use in applications such as traffic surveys, batch counts, store checks, attendance-monitoring etc
- 4-digit display to 9,999
- Reset to zero with a thumbscrew that can be removed to prevent unauthorised resetting
- TL-6 Additional Features: Plastic base with pre-drilled holes for bench mounting

Price Each

Order Code	Product Code	1+
WX63759	TL-4 Hand Held Counter	£7.00
WX63760	TL-6 Bench Mout Counter	£7.86

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Test & Measurement

Digital Tally Counter



NEW

- This lightweight pocket-sized hand-held digital tally counter has been designed for ease of use with large, easy-to-operate count buttons, an LCD display, with backlight for low light conditions and a shaped case which allows a firm and comfortable grip of the tally counter
- Count-Up/Down Digital Tally Counter – adds and subtracts 0 to 9,999
- Large count button with $\pm$ button for add/subtract
- On/Off/Reset button
- Count confirmation bleep or silent operation
- Maximum count 9,999
- Can not be accidentally reset or switched off – press On/Off/Reset button for 3 seconds to activate
- 15mm LCD display with Backlight
- Display Backlight – Auto Off after 5 seconds
- Impact-resistant ABS case with wrist strap
- Shaped case with wide 55mm head and narrower 37mm body for improved grip
- Auto Power Off after 2 hours of no activity – returns to the last counted number when the counter is switched on again
- Supplied with batteries
- Dimensions 85 x 37 (55mm head) x 18mm
- Weight 40g

Price Each

Order Code	Product Code		1+
WX63761 ‡	TLD-2	Digital Counter	£9.57

‡ Special delivery applies. Please ask for details

Inspection & Testing

Metal & Wire Detection

Cable Detector



FLUKE



- The Fluke 2042 is a professional general purpose cable locator
- It is ideal for tracing cables in walls and underground, locating fuses/breakers on final circuits and locating interruptions and short-circuits in cables and electrical floor heating systems
- It can also be used for tracing metallic water and heating pipes
- The unit is supplied as a complete kit comprising of a transmitter and receiver in a purpose-made carry case
- For all applications (live or dead cables) without additional instruments
- Proven digitally coded sender signal guarantees clear signal identification
- Transmitter with LCD-display for transmitting level, transmitting code and external voltage
- Receiver with a backlight LCD-display for level of receiving signal, code of receiving signal and live voltage indication
- Automatic or manual adjustment of receiving signal sensitivity
- Switchable acoustic receiving signal and Auto-Power-Off
- Additional torch lamp function for working in dark environments
- Additional transmitters are available for extension or to distinguish between several signals
- Batteries transmitter: 6 pc batteries 1.5V
- Included accessories:
TL27 Heavy duty test lead set (2)
TP74 Lantern tip test probe set
AC285 alligator clip set
Soft carrying case & a hard case

Product:	Transmitter
Voltage Measurement Range	12V 50V 120V 230V 400V
Frequency Range	0..60Hz
Output signal	125 kHz
Voltage	Up to 400V AC/DC
Batteries	6 pc Batteries 1.5V
Size	190 x 85 x 50 mm

Product:	Receiver
Tracing depth cable location	0-2.5m wall/underground cables
Main voltage detection	0-0.4m
Batteries	1 pc Battery 9V
Size	250 x 65 x 45mm

Price Each

Order Code	Product Code	1+	4+
WX38632	FLUKE-2042	£533.00	£511.68

Inspection

Video Borescope/Wireless Inspection Camera



EXTECH
A FLIR COMPANY

- 9mm camera diameter and 3.5" Colour TFT LCD Wireless Monitor
- Includes 2GB microSD memory card for capturing images (JPEG) or video (AVI) for viewing on your PC
- Detachable wireless colour display can be viewed from a remote location up to 32ft (10m) from measurement point
- 39" (1m) flexible goose-neck with waterproof camera (9mm diameter) and 4 built-in bright LED lights for illuminating dark areas
- Captured videos and images can be viewed on the wireless monitor or transferred to your PC via the microSD card or USB cable
- Menus in 10 languages: English, Chinese, German, French, Spanish, Portuguese, Italian, Japanese, Dutch, and Russian
- Complete with 4AA batteries, rechargeable display battery, microSD card with adaptor, USB and video cable, extension tools, 100-240V AC adaptor, stand and case
- Additional accessory of a 38" (0.96m) cable for increasing Viewing distance is available for purchase
- 19mm Diameter connector
- Maximum 2 extension cables can be connected to the borescope

Price Each

Order Code	Product Code	Description	1+
WX53586 ‡	BR250	Borescope	£269.30
WX53587 ‡	BR200-EXT	0.9m Extension Cable	£45.97

‡ Special delivery applies. Please ask for details

Endoscope TKES 1



SKF

The SKF Endoscope TKES 1 is a compact handheld instrument with a 3.5" TFT LCD screen which has the capacity of viewing, storing and reviewing still and video images. This is the perfect inspection tool to save time by reducing the need to disassemble items.

- Flexible insertion tube with miniature camera (1 metre - 3.3ft) - 5.5mm tip
- Powerful LED lighting
- 1GB SD memory card can store 30,000 images or 4-5 hours of video
- Images and video can be transferred to PC using the USB cable provided
- 67° field of view offers an excellent viewing range
- Supplied complete with all cables, universal mains charger and carrying case

Price Each

Order Code	Product Code	Description	1+
WX43941 ‡	TKES1	Endoscope	£796.81

‡ Special delivery applies. Please ask for details

Endoscope TKES 10 Series



First Line inspection tool for internal inspection of Machinery
Endoscope with semi-rigid tube
Endoscope with 2 way articulation

- SKF Endoscopes TKES 10 series are first line inspection tools that can be used for internal inspection of machinery. They help minimise the need to disassemble machinery for inspection, saving time and money. The compact display unit, with 3.5" backlit screen, allows images and video to be saved and recalled, or to be downloaded and shared with others. Three different models cater to most needs and are equipped with powerful variable LED lighting allowing inspections in dark locations. High resolution miniature camera, with up to 2TM digital zoom, gives a clear and sharp full screen image.

Available with a 1 metre (3.3 ft) insertion tube in three different variants; flexible, semi-rigid or with an articulating tip.

Small tip diameter of 5,8 mm (0.23 in.), with a wide field of view, allows easy access to most applications.

Supplied with a side view adapter allowing inspection of applications such as pipe walls.

Powerful magnets, and a tripod mount on the back of the display unit, allow the display unit to be used "hands free".

Up to 50 000 photos or 120 minutes of video can be stored on the SD memory card supplied.

Longer flexible and semi-rigid insertion tubes are available as accessories.
Supplied in a sturdy carrying case complete with all necessary cables, universal mains charger and cleaning kit.

Price Each

Order Code	Product Code	Description	1+
WX61136 ‡	TKES-10F	Endoscope with Flexible Tube	£652.20
WX61137 ‡	TKES-10S	Endoscope with Semi Rigid Tube	£652.20
WX61138 ‡	TKES-10A	Endoscope with Articulating Tube	£1,043.52

‡ Special delivery applies. Please ask for details

Flir VS70 Borescope



- The FLIR VS70 Videoscopes are rugged, waterproof and shock-resistant video scopes that feature intuitive handset controls that enable users to maneuver the narrow camera probe into tight spaces to deliver vivid and sharp video and images to a large 5.7" color LCD display. Advanced inspection solutions, expansion cameras, and add-on accessories enable users to expand their FLIR VS70 to address many different inspection needs.
- Rubber-reinforced case is waterproof and capable of withstanding two-meter drops (IP67-rated)
- Handset controls allow users to select 180-degree or 90-degree camera angles
- Record video and images that transfer to a PC via SD card or USB port
- Rugged - 2m drop tested and IP67 ensures your meter will last. 2yr Warranty
- Voice annotate video recordings to add critical details with included headset
- Extended battery life accommodates a full day of inspections without recharging
- USB-based charging system enables users to charge at home, on the road, or at the job site
- Base system is also available with a wide range of handsets, camera probes, and wireless options
- Display Resolution: 640x480px

- Display Size: 13.5cm
- Battery Life: 6-8hrs
- Frame Rate: 30fps
- Video/Image transfer: SD Card or USB
- Camera diameter options: 3.9mm to 28mm
- Camera focal length options: Long view or Short view macro
- Camera cable length range: 0.3m to 30m
- Certifications: FCC
- Kit options:
 - VS70-1 General Purpose Long Focus Wired Solution
 - VS70-1W Wireless General Purpose Long Focus Solution
 - VS70-2 Small Opening Short Focus Wired Solution
 - VS70-3 2-Way Wired Articulation kit - Long Focus Solution
 - VS70-3W 2-Way Wireless Articulation kit - Long Focus Solution
 - VS70-4 4-Way Wireless Articulation kit - Long Focus Solution
 - VS70-4M 4-Way Wireless Articulation kit - Short Focus Solution
 - VS70-KIT 2-Way Articulation and General Purpose Camera
 - VS70-KIT-W Wireless 2-Way Articulation and General Purpose Camera

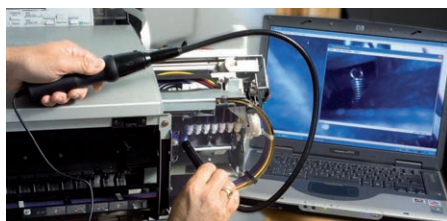
- Each Kit Includes: Hard Case, User Manual, Power Adapter, Headset, Car Charger, Shoulder Strap, Camera Cleaning Kit

Price Each

Order Code	Product Code	1+
WX63762 ‡	VS70-1	£1,359.00
WX63763 ‡	VS70-1W	POA
WX63764 ‡	VS70-2	POA
WX63765 ‡	VS70-3	POA
WX63766 ‡	VS70-3W	POA
WX63767 ‡	VS70-4	POA
WX63768 ‡	VS70-4M	POA
WX63769 ‡	VS70-KIT	POA
WX63770 ‡	VS70-KIT-W	POA

‡ Special delivery applies. Please ask for details

Industrial USB Endoscope



- The USB Endoscope is ideal for inspecting areas that are hard to access and for the diagnosis of maintenance and repair problems:
 - inspect air ducts, ventilators, machinery, engines and motors
 - locate piping under floorboards and in wall cavities
 - check filters and dampers in ducting
 - check corrosion, friction wear or damage to internal components
 - security inspections and customs & excise checks
- Robust and ergonomically designed digital video endoscope
- Flexible "gooseneck" probe adjusts easily to the shape required then remains rigid for one-handed use
- Focus wheel and snapshot button on the handle allow easy operation
- Waterproof camera head and cable
- Clip-on magnet attachment for recovery of small metal objects
- Excellent visibility with adjustable white LED lights
- High quality video and still images
- After connection to your PC or laptop the endoscope allows you to see real-time video on your computer screen and to record and save video files
- Still images can be taken at the touch of a button, displayed on the computer screen and saved easily

- Images and videos can be used in service reports to customers
 - Image processing software runs on Windows 98, ME, 2000, XP & Vista
 - Power is supplied by the computer's USB port. No batteries required
 - Supplied with image processing software, magnet attachment and carry case
- Technical Specifications
 Lens 14mmØ, F#2.8, 54°angle of view
 Focal distance 60mm to infinity
 Camera 300K
 Resolution 640 x 480 pixels
 Picture rate Up to 30fps VGA
 Dimensions 880mm x 8.5mmØ gooseneck probe, 2m USB cable

Price Each

Order Code	Product Code	Description	1+
WX45613 ‡	ENDS-USB1	Endoscope	£60.00

‡ Special delivery applies. Please ask for details

Video Borescope



- This portable video Borescope is designed as a remote inspection device, capable of recording video and taking still images. It is ideal for use in surveying pipes or other hard-to-reach places, equipment or furnishing installation, car repair etc. Features include IP67 water-proof 1m gooseneck and 9mmØ camera lens, real-time recording, and micro SD card storage. It has a 70mm TFT colour display. The instrument can accept any micro SD card (not supplied) from 2GB up to 32GB, to capture still images (JPEG) or video (NTSC/PAL) for download to PC or laptop with date and time stamp. This can then be saved and used as attachments to emails or reports.
- 70mm TFT colour display 640 x 480 pixels
- Picture zoom function up to 3x standard
- Water-proof IP67 9mmØ camera head
- Glare free close-up and wide field of view
- PAL video output and cable
- 4 adjustable dual bright white LED lights
- 1m flexible gooseneck can be pre-formed to a configured shape
- Clip-on mirror, magnet and hook attachments for object retrieval
- The AVB-48 optional camera is HD format, giving Hi-contrast and exceptionally clear images.
- Supplied with 1m gooseneck and 9mmØ camera lens, USB download cable, AV video out cable, clip on mirror, magnet and hook attachments and carry case.
- Requires 4 AA Batteries

Technical Specification

- Focus Range 150 to 2,500mm to infinity
- Resolution: 640 x 480 pixels (colour LCD)
- Power: 4 x 1.5V AA Alkaline Batteries (ALR-6)
- Dimensions: 263 x 86 x 49mm (unit), 1m gooseneck, 9mmØ camera
- Weight: 420g
- Video Format: NTSC / PAL

Price Each

Order Code	Product Code	Description	1+
WX54208 ‡	VB-8823	Borescope	£180.00
WX54209 ‡	VB-48	5.8mmØ HD Gooseneck Camera	£125.00
WX54210 ‡	EXT-1	1m Gooseneck Extension	£27.50

‡ Special delivery applies. Please ask for details

Flexi Inspection Camera



- This state-of-the-art camera with a 2.4" TFT LCD colour viewing screen and 1m flexible probe with a 10mm diameter camera head illuminated by six high power LED's together give a picture of areas that are difficult to see with the naked eye - i.e. inside of cylinder chambers, vehicle door spaces, corrosion checks and many other uses in the automotive workshop
- Features a PAL video-out connection cable to allow real-time viewing or video recording
- Powered by four AA batteries (supplied separately)

Price Each

Order Code	Product Code	Description	1+
WX53579 ‡	13828	Inspection Camera	£160.67

‡ Special delivery applies. Please ask for details

USB Video Borescope with Wireless Display



- This portable video Borescope comes with a 90mm (3.5") TFT wireless colour display
- The 9mmØ camera and 1m flexible gooseneck are water-resistant
- Using a 2GB microSD card (Not Supplied) can captures still images (JPEG) or video (AVI) for download to a PC or laptop with a date and time stamp.
- These can then be saved and used as attachments to emails or reports.
- 90mm (3.5") TFT wireless colour display (up to 10m Transmission)
- Water-resistant IP-67 9mmØ camera head
- Glare free close up and wide field of view (45°) 4 Adjustable dual bright white LED lights
- 1m flexible gooseneck can be preformed to a configured shape
- Clip-on mirror, magnet and hook attachments for object retrieval
- PAL video output and cable
- The VB-48 optional camera is HD Format giving Hi-Contrast and exceptionally clear sharp images
- Supplied with 1m gooseneck 9mmØ camera, USB download cable, AV out cable, clip-on mirror, magnet and hook attachments, carry case and AC/DC mains power charger
- ACCESSORIES
 - EXT-1 1m Flexible Gooseneck Camera Extension
 - VB-48 5.8mmØ HD Gooseneck Camera
- Technical Specifications
 - Focus Range 150 to 2,500mm to infinity
 - Video Format PAL
 - Resolution 640 x 480 pixels (colour LCD)
 - Power 4 x 1.5V AA Alkaline Batteries (LR-6)
 - AC/DC Mains Power Charger (Display)
 - Dimensions 185 x 145 x 40mm (Unit) 1m Gooseneck, 9mmØ Camera
 - Weight 525g

Price Each

Order Code	Product Code	Description	1+
WX61139 ‡	VB-8803	Borescope	£195.00
WX54209 ‡	VB-48	5.8mmØ HD Gooseneck Camera	£125.00
WX54210 ‡	EXT-1	1m Gooseneck Extension	£27.50

‡ Special delivery applies. Please ask for details

Colour Video Borescope with 9mm Camera Head



- This portable Borescope is designed as a remote inspection device. It is ideal for use in surveying pipes or other hard-to-reach places, equipment or furnishing installation, car repair, etc
- Features include IP67 waterproof 1m gooseneck and 9mmØ camera lens. It has a 60mm (2.4") TFT colour display
 - 60mm (2.4") TFT colour display 480 x 234 Pixels
 - Water-Proof IP-67 9mmØ camera head
 - Glare free close up and wide field of view (36°)
 - 8 Contrast settings
 - 4 way rotation of picture on screen
 - 4 Adjustable dual bright white LED lights
 - 1m flexible gooseneck can be preformed to a configured shape
 - Clip-on mirror, magnet and hook attachments for object retrieval
 - The VB-48 optional camera is HD Format giving Hi-Contrast and exceptionally clear sharp images
 - Supplied with 1m gooseneck 9mmØ camera, clip-on mirror, magnet and hook attachments. Requires 4 x AA batteries.

- ACCESSORIES
 - EXT-1 1m Flexible Gooseneck Camera Extension (Max 3)
 - VB-48 5.8mmØ HD Gooseneck Camera
- Technical Specifications
 - Focus Range Up to 1.5m
 - Resolution 480 x 234 pixels (colour LCD)
 - Power 4 x 1.5V AA Alkaline Batteries (LR-6)
 - Dimensions 201 x 83 x 59mm (Unit) 1m Gooseneck, 9mmØ Camera
 - Weight 385g

Price Each

Order Code	Product Code	Description	1+
WX61140 ‡	VB-8805	Borescope	£120.00
WX54209 ‡	VB-48	5.8mmØ HD Gooseneck Camera	£125.00
WX54210 ‡	EXT-1	1m Gooseneck Extension	£27.50
WX61141 ‡	C-3	Briefcase Style Carry Case	£47.60

‡ Special delivery applies. Please ask for details

Articulating Inspection Probe with Wireless Colour Display



- This portable articulated inspection camera comes with a 90mm (3.5") TFT wireless colour display
- The mini 5.5mmØ camera and 1m flexible gooseneck are water-resistant
- Using a dial on the camera you can change the angle of the camera head up to 270° without having to remove the camera from the inspection area
- This feature allows easy use of the camera in hard to reach areas and is ideal for diagnosing and solving problems in pipes, equipment, furnishing installation, car repair, etc. Using a micro SD card (2GB supplied) you can record videos (AVI) and store photos (JPEG) of your findings and this camera has the capability to support a 32GB micro SD card
- You can download your videos and photos to a PC or laptop with a date and time stamp for saving and use as attachments to emails or reports
- 90mm (3.5") TFT wireless colour display 720 x 625 Pixels (up to 10m transmission)
- Water-resistant IP-67 5.5mmØ camera head with 1m flexible gooseneck – protection against dust & water jetting
- Articulated camera head with 270° viewing angle
- Picture Zoom function up to 3 x standard
- 4 Adjustable dual bright white LED lights
- The VB-48 optional 5.8mmØ camera is HD Format, giving Hi-Contrast and exceptionally clear, sharp images. It converts this inspection camera into a non-articulating camera, which

can then be extended in length with the optional EXT-1 1m Gooseneck Camera Extension.

- Supplied with 1m gooseneck 5.5mmØ articulated camera, rechargeable Li-Ion battery, AC/DC mains power charger, carry case for the articulating camera head only & 2GB micro SD card with SD card adapter
- Optional Accessories
 - EXT-1 1m Flexible Gooseneck Camera Extension (Max 3)
 - VB-48 5.8mmØ HD Gooseneck Camera
- Focus Range 20 to 70mm
- Video Format NTSC / PAL
- Resolution 720 x 625 pixels (colour LCD)
- Picture Rate Up to 30fps
- Power 4 x 1.5V AA Alkaline Batteries (LR-6)
- AC/DC Mains Power Charger (Display)
- Dimensions 106 x 83 x 37mm (Unit) 1m Gooseneck, 5.5mmØ Camera
- Weight 836g

Price Each

Order Code	Product Code	Description	1+
WX63771 ‡	8841AU	Borescope	£795.00
WX54209 ‡	VB-48	5.8mmØ HD Gooseneck Camera	£125.00
WX54210 ‡	EXT-1	1m Gooseneck Extension	£27.50

‡ Special delivery applies. Please ask for details

Martindale DC50 Borescope



- This borescope is ideal for fast location of cables and services in concealed locations
- A 3.5" (89mm) detachable TFT monitor provides a clear image for detailed engineering and mechanical applications
- The waterproof 9.8mm diameter camera is IP67 rated, suitable for plumbing and drainage inspections
- The brightness of the LED lighting in the tip of the camera can be adjusted to produce a clear image, even in reflective or poorly lit locations
- There is a 180 degree view rotation function to maintain correct orientation
- The semi-rigid gooseneck camera can be pre-formed for difficult to access locations but still remains flexible enough to guide it around obstructions
- Three attachments clip onto the camera head
- The hook attachment is ideal for retrieving cables in stud walls, the magnet for picking up metallic components and a right-angled mirror is also included for viewing behind obstructions
- The DC50 is supplied with three attachments which clip onto the camera head
- The hook attachment is ideal for retrieving cables in stud walls, the magnet for picking up metallic components and a right-angled mirror is also included for viewing behind obstructions.
- Power Supply: 4 x 1.5V AA Battery
- Current Consumption: 400mA Max
- Resolution: 320 x 240 pixels
- Camera Lighting: 2 x White LEDs
- Field of View: 54°
- Depth of Field: 30 - 60mm
- Operating Temperature: 0 to +45°C
- Operating Humidity: 15 - 85% RH
- Storage Temperature: -10°C to +50°C
- Main Device Dimensions: 90(W) x 205(H) x 131(D)mm
- Weight: 430g approx
- Gooseneck Camera Length: 880mm approx, Diameter: 9.8mm, Minimum Bend Radius: 45mm

Price Each

Order Code	Product Code	1+	3+
WX63772	DC50	£153.50	POA

Inspection Mirror & Pick-up Kit



Roebuck

- Kit containing:
- 1x telescopic mirror 150-500mm range
- 1x telescopic magnetic pick-up

		Price Each	
Order Code	Product Code	1+	6+
WX61142	1248901	£5.96	£5.66

Telescopic Magnetic Pick-up With LED Light



Roebuck

- Telescopic magnetic pick-up with extension range of 190mm-810mm
- Magnet is capable of lifting up to 1.5kg/3.3lbs
- Bright LED light through magnet centre giving 360-degree illumination
- Non-slip moulded handle for oily or wet hands

		Price Each	
Order Code	Product Code	1+	6+
WX61143	1248902	£6.77	£6.43

Illuminated Pick-up Tool With Mirror



Roebuck

- This product has been designed for viewing inaccessible and poorly lit areas
- The set consists of a 350mm flexible, semi-rigid chrome plated shank fitted threaded boss, which retains 1 of 3 mirrors provided (14 & 23 magnifying, 30mm diameter and plain, all set on a 25mm arm)
- The illumination is powered by AA batteries (not included)
- The set also includes a threaded magnetic pick-up that can be used instead of a mirror

		Price Each	
Order Code	Product Code	1+	6+
WX61144	1248899	£24.38	£23.16

Telescopic Pick-up with Light and Mirrors



Roebuck

- Ideal for all kind of inspection work The Set Contents: 1 x Handle complete with Torch, Extending Aluminium Shaft and Magnetic side panel Handle length: with shaft in closed position 190mm, shaft extended 870mm 3 x Viewing Mirrors manufactured from lightweight, tough silvered plastic: 18 x 60mm, 45 x 68mm and 60 x 90mm 1 x Plastic Magnifier 2 x Magnetic Pickup Heads: 12mm & 20mm diameter

		Price Each	
Order Code	Product Code	1+	6+
WX61145	2017411	£29.39	£27.92

Inspection Mirror 55mm Diameter



Roebuck

- This telescopic mirror has fully chromed telescopic shaft and articulated mirror mount
- Mirror can be set in any position for best viewing
- Specifications:-
- Mirror diameter: 50mm
- Fully extended length: 780 mm
- Fully folded length: 200mm Handle:
- Plastic grip 14mm diameter x 120mm long

		Price Each	
Order Code	Product Code	1+	6+
WX61146	2017410	£12.73	£12.09

470mm Flexible Shaft Inspection Mirror



DRAPER

- Fully flexible shaft and fixed head with mirror 55mm diameter to give good visibility in concealed areas
- Plated finish with plastic grip
- Display packed

		Price Each	
Order Code	Product Code	1+	6+
WX35102	11954	£8.84	£8.31

560mm Flexible Magnetic Pick-Up Tool



DRAPER

- Expert quality, chrome plated flexible shaft with plastic handle
- Removable protective cap over magnet
- Display packed

		Price Each	
Order Code	Product Code	1+	6+
WX35104	52305	£11.66	£10.96

Stethoscope



DRAPER

- Suitable for detecting faults in engines, bearings and other moving parts
- Supplied complete with two probes 290mm long

			Price Each	
Order Code	Product Code	Description	1+	6+
WX38620	54503	Stethoscope	£17.33	£16.29

Magnification

Pocket Magnifier Series 183



Mitutoyo

- Clear loupe pocket magnifier
- Handy instrument for localised magnification
- Available in:
- Slim pattern 25X
- Standard 25X
- Standard 50X

			Price Each	
Order Code	Product Code	Description	1+	3+
WX20347	183-201	25X slim	£66.15	£62.84
WX20348	183-202	25x	£135.45	£128.68
WX20349	183-203	50x	£144.90	£137.66

Professional Swing Arm Magnifying Lamp



Clarke

- Spring balanced arms and locking knobs allow unit to be secured in any position
- Powerful 3 diopter lens (120mm diameter) gives excellent magnified viewing of intricate detail
- 22 Watt circular fluorescent tube illuminates the subject (230V)

			Price Each	
Order Code	Product Code	Description	1+	6+
WX35101	5460530	Mag Lamp	£45.08	£42.83

Folding Lens Magnifier



Roebuck

- Provides high quality distortion free magnification
- Bonded 3 lens "Hastings Triplet" construction
- Lenses are recessed to protect from damage
- Swing away lenses are housed in polished chrome plated body
- Supplied with a leather case for added protection

Price Each

Order Code	Product Code	Magnification	1+	6+
WX61148	030157	10	£21.97	£20.87
WX61149	030158	10, 15	£37.48	£35.61
WX61150	030159	10, 15, 20	£56.70	£53.87

Hastings Triplet Type Magnifier



- High quality distortion free magnification
- Single lens 21mm/10x mag
- Double lens 18mm/10x mag + 12mm/15x mag
- 3 lens type 18mm/10x mag + 18mm/15x mag + 18mm/20x mag
- Magnification, Triple Magnifier

Price Each

Order Code	Product Code	Description	1+	6+
WX35121	59-600-111	10X Mag	£23.75	£22.56
WX35122	59-600-222	10X & 15X Mag	£43.20	£41.04
WX35123	59-600-333	10X, 15X & 20X Mag	£64.80	£61.56

Hand Magnifier



Roebuck

- The magnifier has a ground glass lens 60mm diameter
- The focal length is 100mm

Price Each

Order Code	Product Code	Magnification	1+	6+
WX61151	030155	2.5	£3.78	£3.59

Hand held magnifier



Roebuck

- A robust hand-held magnifier with 5x magnification
- Glass lens size 75mm diameter

Price Each

Order Code	Product Code	1+	6+
WX61152	1248895	£4.67	£4.44

Round Magnifiers



- Plastic lightweight magnifiers ideal for engineers, philatelists, etc
- Main lens magnification x 3 with inset x 6.
- Display packed

Price Each

Order Code	Product Code	Lens x Length	1+	6+
WX53580	78474	50mm x 125mm	£4.71	£4.43
WX53581	78475	65mm x 150mm	£5.18	£4.87
WX53582	78476	70mm x 180mm	£6.99	£6.57

Optical Scale Loupe Magnifier



Roebuck

NEW

- Provides 7x magnification with built in focussing ring.
- Supplied with combination scale reticule.
- Fits illuminator handle (AVAILABLE SEPERATELY). The illuminator attachment provides a convenient method of increasing the clarity of the viewed image when using the optical scale loupe.
- Powered by 2 x C size batteries (not included).

Price Each

Order Code	Product Code	1+	6+
WX63773	030152	£39.29	£37.33
WX63774	030153	£30.08	£28.58

4 Lens Pocket Magnifier



Roebuck

NEW

- A 4 lens pocket magnifier, the lenses slide fully into housing for protection
- Magnification: X3, X4.5, X6 and X9.

Price Each

Order Code	Product Code	1+	6+
WX63775	2017395	£4.36	£4.14

Head Bands

LED headband magnifier & 4 lenses



Roebuck

Ideal for close-up precision work, leaving your hands free. This fully adjustable headband includes 4 interchangeable optical lenses and detachable triple LED spotlight with magnetic base. For professional, craft, hobby or DIY projects that demand close-up work.

A fully adjustable tough plastic headband which includes 4 precision ground interchangeable lenses, covering all focal lengths from semi close-up to very close-up which are easily changed over by simple clip-in slots on the headband. Detachable triple LED spotlight with magnetic base for separate use and plastic infill for headband when LED used separately.

Requires 3 x AAA 1.5v batteries (not included)

Price Each

Order Code	Product Code	1+	6+
WX61153	2003637	£50.57	£48.04

Illuminated head band magnifier



Roebuck

This head band magnifier has the following features as standard. Multi-coated acrylic lenses offer a choice of 4 magnification powers via a combination of fixed, flip-up and monocular lenses: 1.5, 3.0, 9.0 and 10.5.

It also has bright dual LED illumination, tilt and swivel LED adjustment, a visor that can be lifted and lowered as required, and the magnifier can be used when wearing glasses.

The headband magnifier is most useful for assembly and inspection work and is also suitable for hobbies, crafts and general reading.

Price Each

Order Code	Product Code	1+	6+
WX61154	2017427	£11.97	£11.37

3D Sighter



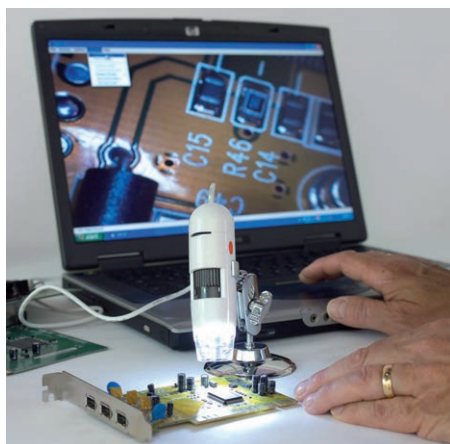
- Enlarges close work so that it is seen clearly in 3D
- Adjusts to any head size comfortably
- Has no moving parts to wear out or replace
- Magnification, 3D sighter

Price Each

Order Code	Product Code	Description	1+	6+
WX35117	52-660-707	1-3/4 X Mag	£22.90	£21.76
WX35118	52-660-727	2-1/4 X Mag	£22.90	£21.76
WX35119	52-660-737	2-3/4 X Mag	£27.89	£26.50

Microscopes

USB Digital Microscope



- High speed connection with USB 2.0
- Light intensity adjustment
- Focus wheel for zoom range from 10X to 200X magnification
- Light source from 6 white LED bulbs
- Adjustable stand
- Auto focus
- Record still image or video
- USB Digital Microscope is a fully functional magnification device which is extremely easy to use. By just plugging directly into your computer you can view objects magnified up to 200 times. An adjustable light control wheel, 6 white LED lights, a 2 megapixel digital camera and USB 2.0 interface ensure the Microscope captures high quality images and videos to your PC or laptop
- Impact-resistant ABS case with 1.2m USB cable
- Light-weight and easy to handle
- Easy to operate one-handed with a rotary focus wheel, light intensity wheel and button for still images

- Sharp, clear image with adjustable light intensity from 6 white LEDs
- Magnified images can be viewed in real time on the computer screen
- Still images can be captured at the touch of a button, displayed on the computer screen and saved
- Video images can be viewed live on the screen as they are being captured, saved on the computer for viewing and use later
- Microscope can be used hand-held or with the stand supplied
- Chrome stand is easily adjustable with 2 pivot points and 360° rotation of the arm and holding socket
- Stand can be locked into place with the required positioning
- Requires no batteries, receiving its power directly from the computer's USB power
- Image processing software runs on Windows 98, ME, 2000, XP & Vista
- Image Sensor 2 Megapixels
- PC Interface Mini USB 2.0 with 1.2m cable
- Power supply 5V DC from USB port
- Size 110mm x 33mm Ø

Price Each

Order Code	Product Code	Description	1+	3+
WX45612 ‡	DMS-USB2	USB Microscope	£90.00	£86.40

‡ Special delivery applies. Please ask for details

Long Reach Microscope



- For viewing surfaces of items which will not fit onto conventional plate
- 2x Objective lens (giving x20 magnification)
- 10x Eyepiece with adjustable centres & rubber eye cups
- Top swivelling light source, 12v lamp, 220v supply
- Positive rack and pinion focussing
- Articulated 290mm long extension arm
- Heavy duty base plate 120 x 200 x 65mm
- 290mm Column height

Price Each

Order Code	Product Code	Description	1+	3+
WX38653 ‡	59-020-100	Microscope	£301.15	£286.09
WX38655 ‡	59-020-105	Lens x1	£39.00	£37.05
WX38654 ‡	59-020-102	Spare Bulb	£9.69	£9.21
WX38650 ‡	59-020-041	Eye Piece 15x	£22.60	£21.47
WX38651 ‡	59-020-042	Eye Piece 20x	£22.60	£21.47
WX38652 ‡	59-020-045	Eye Piece 10x	£45.00	£42.75

‡ Special delivery applies. Please call for details

Stereo Microscope



- Highly quality stereo microscope
- Used exclusively for surface inspection
- 2x and 4x objectives
- 10x Eyepiece
- 12v Incident illuminator with 220v on/off switch
- Eyepieces mounted in 45° inclined eyetube
- Interpupillary distance adjustable from 2" to 3" (50mm to 75mm)
- Objectives mounted in 180° revolving turret with positive click stop, parfocal and parcentred
- 2.5" Reversible white/black stage plate provided
- Pair of rubber eye cups provided

Price Each

Order Code	Product Code	Description	1+	3+
WX40011 ‡	59-020-040	Microscope	£323.00	£306.85
WX38648 ‡	59-020-039	Spare Bulb	£3.10	£2.95
WX38650 ‡	59-020-041	Eye Piece 15x	£22.60	£21.47
WX38651 ‡	59-020-042	Eye Piece 20x	£22.60	£21.47
WX38652 ‡	59-020-045	Eye Piece 10x	£45.00	£42.75

‡ Special delivery applies. Please call for details

Hardness Testers

Durometer Shore "A" Scale



- Shore Durometers are suitable for checking the hardness of rubber, plastic and many other soft materials
- Fast easy to read, portable instrument
- Manufactured to DIN 53 505
- Complete with reference setting block and instructions
- Supplied in fitted case

Price Each

Order Code	Product Code	1+	3+
WX31794	59-500-000	£146.30	£138.99

Digital Shore scale "A" and "D" Durometer



- Testing rubber, plastic, leather and all other soft materials
- Fast and easy to read
- Large digital display, digits 6mm high
- Use by hand or mounted on a stand
- Supplied with a reference block
- Data output for SPC
- Zero setting - preset - value input options
- Electronic module protection to IP65, even with data output (see IP Ratings explanation within digital calipers section)
- Can be used in conjunction with Shore bench stand
- UKAS Certification
- Conforms to DIN 53 505, ASTM D2240 and ISO R/868
- Display range 0-100

Price Each

Order Code	Product Code	Description	1+	3+
WX38590 ‡	DSAS001	Durometer A	£491.50	POA
WX44020 ‡	DSDS001	Durometer D	£491.50	POA

‡ Special delivery applies. Please call for details

Roughness Testers

Portable Surface Roughness Tester



- A portable pocket sized surface roughness measuring instrument ideally suited to rapid on the spot surface roughness measurements (Ra and RZ roughness parameters)
- Back lit LCD
- Dynamic Test display: progress of cut-off length during testing
- Protection slide on pick-up
- Auto off after 90 seconds
- Both Ra and RZ parameters in one instrument
- Piezo electric pick-up stylus for external surfaces

Price Each

Order Code	Product Code		1+	3+
WX44021 ‡	MTR-110	Tester	£1,173.72	£1,103.30

Range: Rz 0.10 - 50um / Ra 0.05 - 15.0um

‡ Special delivery applies. Please call for details

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Test & Measurement

